

If you plan to submit a bid directly to the Department of Transportation

PREQUALIFICATION

Any contractor who desires to become pre-qualified to bid on work advertised by IDOT must submit the properly completed pre-qualification forms to the Bureau of Construction no later than 4:30 p.m. prevailing time twenty-one days prior to the letting of interest. This pre-qualification requirement applies to first time contractors, contractors renewing expired ratings, contractors maintaining continuous pre-qualification or contractors requesting revised ratings. To be eligible to bid, existing pre-qualification ratings must be effective through the date of letting.

REQUESTS FOR AUTHORIZATION TO BID

Contractors downloading and/or ordering CD-ROM's and are wanting to bid on items included in a particular letting must submit the properly completed "Request for Authorization to Bid/or Not For Bid Status" (BDE 124INT) and the ORIGINAL, signed and notarized, "Affidavit of Availability" (BC 57) to the proper office no later than 4:30 p.m. prevailing time, three (3) days prior to the letting date.

WHO CAN BID ?

Bids will be accepted from only those companies that request and receive written **Authorization to Bid** from IDOT's Central Bureau of Construction.

WHAT CONSTITUTES WRITTEN AUTHORIZATION TO BID?: When a prospective prime bidder submits a "Request for Authorization to Bid/or Not For Bid Status" (BDE 124INT) he/she must indicate at that time which items are being requested For Bidding purposes. Only those items requested For Bidding will be analyzed. After the request has been analyzed, the bidder will be issued a **Proposal Denial and/or Authorization Form**, approved by the Central Bureau of Construction, that indicates which items have been approved For Bidding. If **Authorization to Bid** cannot be approved, the **Proposal Denial and/or Authorization Form** will indicate the reason for denial.

ABOUT AUTHORIZATION TO BID: Firms that have not received an authorization form within a reasonable time of complete and correct original document submittal should contact the department as to status. This is critical in the week before the letting. These documents must be received three days before the letting date. Firms unsure as to authorization status should call the Prequalification Section of the Bureau of Construction at the number listed at the end of these instructions.

ADDENDA: It is the contractor's responsibility to determine which, if any, addenda pertains to any project they may be bidding. Failure to incorporate all relevant addenda may cause the bid to be declared unacceptable.

Each addendum will be placed with the contract number. Addenda will also be placed on the Addendum/Revision Checksheet and each subscription service subscriber will be notified by e-mail of each addendum issued.

The Internet is the Department's primary way of doing business. The subscription server e-mails are an added courtesy the Department provides. It is suggested that bidder check IDOT's website <http://www.dot.il.gov/desenv/delett.html> before submitting final bid information.

IDOT is not responsible for any e-mail related failures.

Addenda Questions may be directed to the Contracts Office at (217)-782-7806 or D&Econtracts@dot.il.gov

Technical Questions about downloading these files may be directed to Roseanne Nance (217)-785-5875 or nancer@dot.il.gov

WHAT MUST BE INCLUDED WHEN BIDS ARE SUBMITTED?: Bidders need not return the entire proposal when bids are submitted. That portion of the proposal that must be returned includes the following:

1. All documents from the Proposal Cover Sheet through the Proposal Bid Bond
2. Other special documentation and/or information that may be required by the contract special provisions

All proposal documents, including Proposal Guaranty Checks or Proposal Bid Bonds, should be stapled together to prevent loss when bids are processed by IDOT personnel.

ABOUT SUBMITTING BIDS: It is recommended that bidders deliver bids in person to insure they arrive at the proper location prior to the time specified for the receipt of bids. Any bid received at the place of letting after the time specified will not be accepted.

WHO SHOULD BE CALLED IF ASSISTANCE IS NEEDED?

Questions Regarding	Call
Prequalification and/or Authorization to Bid	217/782-3413
Preparation and submittal of bids	217/782-7806
Mailing of plans and proposals	217/782-7806
Electronic plans and proposals	217/785-5875

ADDENDUMS TO THE PROPOSAL FORMS

Planholders should verify that they have received and incorporated the revisions prior to submitting their bid. Failure by the bidder to include an addendum could result in a bid being rejected as irregular.

55

RETURN WITH BID

Proposal Submitted By
Name
Address
City

Letting January 21, 2005

BIDDERS NEED NOT RETURN THE ENTIRE PROPOSAL
(See instructions inside front cover)

NOTICE TO PROSPECTIVE BIDDERS

This proposal can be used for bidding purposes by only those companies that request and receive written AUTHORIZATION TO BID from IDOT's Central Bureau of Construction.

(SEE INSTRUCTIONS ON THE INSIDE OF COVER)

Notice To Bidders, Specifications, Proposal, Contract and Contract Bond



**Illinois Department
of Transportation**

Springfield, Illinois 62764

**Contract No. 70218
CLARK County
Section (24BR-1)BR
Route FAP 332
Project BRF-332(76)
District 5 Construction Funds**

PLEASE MARK THE APPROPRIATE BOX BELOW:

- A Bid Bond is included.
- A Cashier's Check or a Certified Check is included

Prepared by

F

Checked by

(Printed by authority of the State of Illinois)

INSTRUCTIONS

ABOUT IDOT PROPOSALS: All proposals issued by IDOT are potential bidding proposals. Each proposal contains all Certifications and Affidavits, a Proposal Signature Sheet and a Proposal Bid Bond required for Prime Contractors to submit a bid after written **Authorization to Bid** has been issued by IDOT's Central Bureau of Construction.

WHO CAN BID?: Bids will be accepted from only those companies that request and receive written **Authorization to Bid** from IDOT's Central Bureau of Construction. To request authorization, a potential bidder must complete and submit Part B of the Request for Authorization to Bid/or Not For Bid Status form (BDE 124 INT) and submit an original Affidavit of Availability (BC 57).

WHAT CONSTITUTES WRITTEN AUTHORIZATION TO BID?: When a prospective prime bidder submits a "Request for Proposal Forms and Plans" he/she must indicate at that time which items are being requested For Bidding purposes. Only those items requested For Bidding will be analyzed. After the request has been analyzed, the bidder will be issued a **Proposal Denial and/or Authorization Form**, approved by the Central Bureau of Construction, that indicates which items have been approved For Bidding. If **Authorization to Bid** cannot be approved, the **Proposal Denial and/or Authorization Form** will indicate the reason for denial. If a contractor has requested to bid but has not received a **Proposal Denial and/or Authorization Form**, they should contact the Central Bureau of Construction in advance of the letting date.

WHAT MUST BE INCLUDED WHEN BIDS ARE SUBMITTED?: Bidders need not return the entire proposal when bids are submitted. That portion of the proposal that must be returned includes the following:

1. All documents from the Proposal Cover Sheet through the Proposal Bid Bond
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Mailing of CD-ROMS	217/782-7806

RETURN WITH BID



PROPOSAL

TO THE DEPARTMENT OF TRANSPORTATION

1. Proposal of _____

for the improvement identified and advertised for bids in the Invitation for Bids as:

**Contract No. 70218
CLARK County
Section (24BR-1)BR
Project BRF-332(76)
Route FAP 332
District 5 Construction Funds**

This project consists of removal and replacement of the existing bridge carrying Illinois Route 1 over Mill Creek, north of West Union.

2. The undersigned bidder will furnish all labor, material and equipment to complete the above described project in a good and workmanlike manner as provided in the contract documents provided by the Department of Transportation. This proposal will become part of the contract and the terms and conditions contained in the contract documents shall govern performance and payments.

RETURN WITH BID

3. **ASSURANCE OF EXAMINATION AND INSPECTION/WAIVER.** The undersigned further declares that he/she has carefully examined the proposal, plans, specifications, form of contract and contract bond, and special provisions, and that he/she has inspected in detail the site of the proposed work, and that he/she has familiarized themselves with all of the local conditions affecting the contract and the detailed requirements of construction, and understands that in making this proposal he/she waives all right to plead any misunderstanding regarding the same.

4. **EXECUTION OF CONTRACT AND CONTRACT BOND.** The undersigned further agrees to execute a contract for this work and present the same to the department within fifteen (15) days after the contract has been mailed to him/her. The undersigned further agrees that he/she and his/her surety will execute and present within fifteen (15) days after the contract has been mailed to him/her contract bond satisfactory to and in the form prescribed by the Department of Transportation, in the penal sum of the full amount of the contract, guaranteeing the faithful performance of the work in accordance with the terms of the contract.

5. **PROPOSAL GUARANTY.** Accompanying this proposal is either a bid bond on the department form, executed by a corporate surety company satisfactory to the department, or a proposal guaranty check consisting of a bank cashier's check or a properly certified check for not less than 5 per cent of the amount bid or for the amount specified in the following schedule:

<u>Amount of Bid</u>		<u>Proposal Guaranty</u>	<u>Amount of Bid</u>		<u>Proposal Guaranty</u>	
Up to	\$5,000	\$150	\$2,000,000	to	\$3,000,000	\$100,000
\$5,000	to \$10,000	\$300	\$3,000,000	to	\$5,000,000	\$150,000
\$10,000	to \$50,000	\$1,000	\$5,000,000	to	\$7,500,000	\$250,000
\$50,000	to \$100,000	\$3,000	\$7,500,000	to	\$10,000,000	\$400,000
\$100,000	to \$150,000	\$5,000	\$10,000,000	to	\$15,000,000	\$500,000
\$150,000	to \$250,000	\$7,500	\$15,000,000	to	\$20,000,000	\$600,000
\$250,000	to \$500,000	\$12,500	\$20,000,000	to	\$25,000,000	\$700,000
\$500,000	to \$1,000,000	\$25,000	\$25,000,000	to	\$30,000,000	\$800,000
\$1,000,000	to \$1,500,000	\$50,000	\$30,000,000	to	\$35,000,000	\$900,000
\$1,500,000	to \$2,000,000	\$75,000	over		\$35,000,000	\$1,000,000

Bank cashier's checks or properly certified checks accompanying proposals shall be made payable to the Treasurer, State of Illinois, when the state is awarding authority; the county treasurer, when a county is the awarding authority; or the city, village, or town treasurer, when a city, village, or town is the awarding authority.

If a combination bid is submitted, the proposal guaranties which accompany the individual proposals making up the combination will be considered as also covering the combination bid.

The amount of the proposal guaranty check is _____ \$(_____). If this proposal is accepted and the undersigned shall fail to execute a contract bond as required herein, it is hereby agreed that the amount of the proposal guaranty shall become the property of the State of Illinois, and shall be considered as payment of damages due to delay and other causes suffered by the State because of the failure to execute said contract and contract bond; otherwise, the bid bond shall become void or the proposal guaranty check shall be returned to the undersigned.

Attach Cashier's Check or Certified Check Here

In the event that one proposal guaranty check is intended to cover two or more proposals, the amount must be equal to the sum of the proposal guaranties which would be required for each individual proposal. If the guaranty check is placed in another proposal, state below where it may be found.

The proposal guaranty check will be found in the proposal for:

Item _____

Section No. _____

County _____

Mark the proposal cover sheet as to the type of proposal guaranty submitted.

BD 354 (Rev. 11/2001)

RETURN WITH BID

6. **COMBINATION BIDS.** The undersigned further agrees that if awarded the contract for the sections contained in the following combination, he/she will perform the work in accordance with the requirements of each individual proposal comprising the combination bid specified in the schedule below, and that the combination bid shall be prorated against each section in proportion to the bid submitted for the same. If an error is found to exist in the gross sum bid for one or more of the individual sections included in a combination, the combination bid shall be corrected as provided in the specifications.

When a combination bid is submitted, the schedule below must be completed in each proposal comprising the combination.

If alternate bids are submitted for one or more of the sections comprising the combination, a combination bid must be submitted for each alternate.

Schedule of Combination Bids

Combination No.	Sections Included in Combination	Combination Bid	
		Dollars	Cents

7. **SCHEDULE OF PRICES.** The undersigned bidder submits herewith, in accordance with the rules and instructions, a schedule of prices for the items of work for which bids are sought. The unit prices bid are in U.S. dollars and cents, and all extensions and summations have been made. The bidder understands that the quantities appearing in the bid schedule are approximate and are provided for the purpose of obtaining a gross sum for the comparison of bids. If there is an error in the extension of the unit prices, the unit prices shall govern. Payment to the contractor awarded the contract will be made only for actual quantities of work performed and accepted or materials furnished according to the contract. The scheduled quantities of work to be done and materials to be furnished may be increased, decreased or omitted as provided elsewhere in the contract.
8. **CERTIFICATE OF AUTHORITY.** The undersigned bidder, if a business organized under the laws of another State, assures the Department that it will furnish a copy of its certificate of authority to do business in the State of Illinois with the return of the executed contract and bond. Failure to furnish the certificate within the time provided for execution of an awarded contract may be cause for cancellation of the award and forfeiture of the proposal guaranty to the State.

ILLINOIS DEPARTMENT OF TRANSPORTATION
 SCHEDULE OF PRICES
 CONTRACT
 NUMBER - 70218

State Job # - C-95-033-02
 PPS NBR - 5-51100-0000
 County Name - CLARK- -
 Code - 23 - -
 District - 5 - -
 Section Number - (24BR-1)BR

Project Number
 BRF-0332/076/000

Route
 FAP 332

Item Number	Pay Item Description	Unit of Measure	Quantity	x	Unit Price	=	Total Price
X0323830	DRAINAGE SCUPPR DS-11	EACH	2.000				
X0324865	DIAMOND GRIND BR SEC	SQ YD	740.400				
X4066416	BC SC SUPER "C" N70	TON	221.000				
X4066616	BCBC SUP IL-19.0 N70	TON	834.000				
X5020501	UNWAT STR EX PROT L1	EACH	1.000				
X5020502	UNWAT STR EX PROT L2	EACH	1.000				
X7015200	PORTABLE TRAF SIGNALS	L SUM	1.000				
Z0002600	BAR SPLICERS	EACH	658.000				
Z0002900	BASE CSE (OPTION)	SQ YD	598.000				
Z0030240	IMP ATTN TEMP NRD TL2	EACH	2.000				
Z0030340	IMP ATTN REL NRD TL2	EACH	2.000				
Z0038700	PERMNT BENCH MARKS	EACH	1.000				
Z0065000	SET PILES IN ROCK	EACH	12.000				
20100110	TREE REMOV 6-15	UNIT	301.000				
20100210	TREE REMOV OVER 15	UNIT	18.000				

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20200100	EARTH EXCAVATION	CU YD	168.000				
20400800	FURNISHED EXCAV	CU YD	193.000				
20700220	POROUS GRAN EMBANK	CU YD	157.500				
28100109	STONE RIPRAP CL A5	SQ YD	961.200				
28200100	FILTER FAB FOR RIPRAP	SQ YD	961.200				
40600100	BIT MATLS PR CT	GALLON	526.000				
40600300	AGG PR CT	TON	11.000				
40600895	CONSTRUC TEST STRIP	EACH	1.000				
40600980	BIT SURF REM BUTT JT	SQ YD	167.000				
40600990	TEMPORARY RAMP	SQ YD	167.000				
42001165	BR APPR PAVT	SQ YD	214.000				
42001300	PROTECTIVE COAT	SQ YD	214.000				
42001430	BR APPR PVT CON (FLX)	SQ YD	49.000				
44000700	APPROACH SLAB REM	SQ YD	152.000				
48101200	AGGREGATE SHLDS B	TON	54.000				

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50100100	REM EXIST STRUCT	EACH	1.000				
50200100	STRUCTURE EXCAVATION	CU YD	293.200				
50300100	FLOOR DRAINS	EACH	18.000				
50300225	CONC STRUCT	CU YD	163.400				
50300255	CONC SUP-STR	CU YD	218.600				
50300260	BR DECK GROOVING	SQ YD	768.000				
50300300	PROTECTIVE COAT	SQ YD	730.000				
50400805	F & E P P CON I-BM 36	FOOT	984.500				
50800205	REINF BARS, EPOXY CTD	POUND	59,790.000				
51201400	FUR STL PILE HP10X42	FOOT	264.000				
51201500	FUR STL PILE HP10X57	FOOT	342.000				
51202700	DRIVE STL PILE	FOOT	264.000				
51204600	METAL SHOES	EACH	12.000				
51205200	TEMP SHT PILING	SQ FT	753.000				
51500100	NAME PLATES	EACH	1.000				

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54215547	MET END SEC 12	EACH	2.000				
60100945	PIPE DRAINS 12	FOOT	75.000				
60900240	TY C INLET BOX 609006	EACH	2.000				
60900515	CONC THRUST BLOCKS	EACH	2.000				
63000000	SPBGR TY A	FOOT	575.000				
63100085	TRAF BAR TERM T6	EACH	4.000				
63100167	TR BAR TRM T1 SPL TAN	EACH	4.000				
63301000	REM & RE-ERECT SPBGR	FOOT	2,282.000				
67000400	ENGR FIELD OFFICE A	CAL MO	4.000				
67100100	MOBILIZATION	L SUM	1.000				
70100405	TRAF CONT-PROT 701321	EACH	1.000				
70100500	TRAF CONT-PROT 701326	L SUM	1.000				
70103815	TR CONT SURVEILLANCE	CAL DA	2.000				
70300100	SHORT-TERM PAVT MKING	FOOT	147.000				
70301000	WORK ZONE PAVT MK REM	SQ FT	49.000				

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Item Number	Pay Item Description	Unit of Measure	Quantity	x	Unit Price	=	Total Price
70400100	TEMP CONC BARRIER	FOOT	540.000				
70400200	REL TEMP CONC BARRIER	FOOT	540.000				
78001110	PAINT PVT MK LINE 4	FOOT	1,652.000				
78100100	RAISED REFL PAVT MKR	EACH	19.000				
78200400	GUARDRAIL REFLECTORS	EACH	14.000				
78201000	TERMINAL MARKER - DA	EACH	4.000				
78300200	RAISED REF PVT MK REM	EACH	19.000				

CONTRACT NUMBER

70218

THIS IS THE TOTAL BID

\$ _____

NOTES:

1. Each PAY ITEM should have a UNIT PRICE and a TOTAL PRICE.
2. The UNIT PRICE shall govern if no TOTAL PRICE is shown or if there is a discrepancy between the product of the UNIT PRICE multiplied by the QUANTITY.
3. If a UNIT PRICE is omitted, the TOTAL PRICE will be divided by the QUANTITY in order to establish a UNIT PRICE.
4. A bid may be declared UNACCEPTABLE if neither a unit price nor a total price is shown.

RETURN WITH BID

STATE REQUIRED ETHICAL STANDARDS GOVERNING CONTRACT PROCUREMENT: ASSURANCES, CERTIFICATIONS AND DISCLOSURES

I. GENERAL

A. Article 50 of the Illinois Procurement Code establishes the duty of all State chief procurement officers, State purchasing officers, and their designees to maximize the value of the expenditure of public moneys in procuring goods, services, and contracts for the State of Illinois and to act in a manner that maintains the integrity and public trust of State government. In discharging this duty, they are charged by law to use all available information, reasonable efforts, and reasonable actions to protect, safeguard, and maintain the procurement process of the State of Illinois.

B. In order to comply with the provisions of Article 50 and to carry out the duty established therein, all bidders are to adhere to ethical standards established for the procurement process, and to make such assurances, disclosures and certifications required by law. By execution of the Proposal Signature Sheet, the bidder indicates that each of the mandated assurances has been read and understood, that each certification is made and understood, and that each disclosure requirement has been understood and completed.

C. In addition to all other remedies provided by law, failure to comply with any assurance, failure to make any disclosure or the making of a false certification shall be grounds for termination of the contract and the suspension or debarment of the bidder.

II. ASSURANCES

A. The assurances hereinafter made by the bidder are each a material representation of fact upon which reliance is placed should the Department enter into the contract with the bidder. The Department may terminate the contract if it is later determined that the bidder rendered a false or erroneous assurance, and the surety providing the performance bond shall be responsible for the completion of the contract.

B. Felons

1. The Illinois Procurement Code provides:

Section 50-10. Felons. Unless otherwise provided, no person or business convicted of a felony shall do business with the State of Illinois or any state agency from the date of conviction until 5 years after the date of completion of the sentence for that felony, unless no person held responsible by a prosecutorial office for the facts upon which the conviction was based continues to have any involvement with the business.

2. The bidder assures the Department that the award and execution of the contract would not cause a violation of Section 50-10.

C. Conflicts of Interest

1. The Illinois Procurement Code provides in pertinent part:

Section 50-13. Conflicts of Interest.

(a) Prohibition. It is unlawful for any person holding an elective office in this State, holding a seat in the General Assembly, or appointed to or employed in any of the offices or agencies of state government and who receives compensation for such employment in excess of 60% of the salary of the Governor of the State of Illinois, or who is an officer or employee of the Capital Development Board or the Illinois Toll Highway Authority, or who is the spouse or minor child of any such person to have or acquire any contract, or any direct pecuniary interest in any contract therein, whether for stationery, printing, paper, or any services, materials, or supplies, that will be wholly or partially satisfied by the payment of funds appropriated by the General Assembly of the State of Illinois or in any contract of the Capital Development Board or the Illinois Toll Highway authority.

(b) Interests. It is unlawful for any firm, partnership, association or corporation, in which any person listed in subsection (a) is entitled to receive (i) more than 7 1/2% of the total distributable income or (ii) an amount in excess of the salary of the Governor, to have or acquire any such contract or direct pecuniary interest therein.

(c) Combined interests. It is unlawful for any firm, partnership, association, or corporation, in which any person listed in subsection (a) together with his or her spouse or minor children is entitled to receive (i) more than 15%, in the aggregate, of the total distributable income or (ii) an amount in excess of 2 times the salary of the Governor, to have or acquire any such contract or direct pecuniary interest therein.

(d) Securities. Nothing in this Section invalidates the provisions of any bond or other security previously offered or to be offered for sale or sold by or for the State of Illinois.

(e) Prior interests. This Section does not affect the validity of any contract made between the State and an officer or employee of the State or member of the General Assembly, his or her spouse, minor child or any combination of those persons if that contract was in existence before his or her election or employment as an officer, member, or employee. The contract is voidable, however, if it cannot be completed within 365 days after the officer, member, or employee takes office or is employed.

The current salary of the Governor is \$150,700.00. Sixty percent of the salary is \$90,420.00.

RETURN WITH BID

2. The bidder assures the Department that the award and execution of the contract would not cause a violation of Section 50-13, or that an effective exemption has been issued by the Board of Ethics to any individual subject to the Section 50-13 prohibitions pursuant to the provisions of Section 50-20 of the Code and Executive Order Number 3 (1998). Information concerning the exemption process is available from the Department upon request.

D. Negotiations

1. The Illinois Procurement Code provides in pertinent part:

Section 50-15. Negotiations.

(a) It is unlawful for any person employed in or on a continual contractual relationship with any of the offices or agencies of State government to participate in contract negotiations on behalf of that office or agency with any firm, partnership, association, or corporation with whom that person has a contract for future employment or is negotiating concerning possible future employment.

2. The bidder assures the Department that the award and execution of the contract would not cause a violation of Section 50-15, and that the bidder has no knowledge of any facts relevant to the kinds of acts prohibited therein.

E. Inducements

1. The Illinois Procurement Code provides:

Section 50-25. Inducement. Any person who offers or pays any money or other valuable thing to any person to induce him or her not to bid for a State contract or as recompense for not having bid on a State contract is guilty of a Class 4 felony. Any person who accepts any money or other valuable thing for not bidding for a State contract or who withholds a bid in consideration of the promise for the payment of money or other valuable thing is guilty of a Class 4 felony.

2. The bidder assures the Department that the award and execution of the contract would not cause a violation of Section 50-25, and that the bidder has no knowledge of any facts relevant to the kinds of acts prohibited therein.

F. Revolving Door Prohibition

1. The Illinois Procurement Code provides:

Section 50-30. Revolving door prohibition. Chief procurement officers, associate procurement officers, State purchasing officers, their designees whose principal duties are directly related to State procurement, and executive officers confirmed by the Senate are expressly prohibited for a period of 2 years after terminating an affected position from engaging in any procurement activity relating to the State agency most recently employing them in an affected position for a period of at least 6 months. The prohibition includes, but is not limited to: lobbying the procurement process; specifying; bidding; proposing bid, proposal, or contract documents; on their own behalf or on behalf of any firm, partnership, association, or corporation. This Section applies only to persons who terminate an affected position on or after January 15, 1999.

2. The bidder assures the Department that the award and execution of the contract would not cause a violation of Section 50-30, and that the bidder has no knowledge of any facts relevant to the kinds of acts prohibited therein.

G. Reporting Anticompetitive Practices

1. The Illinois Procurement Code provides:

Section 50-40. Reporting anticompetitive practices. When, for any reason, any vendor, bidder, contractor, chief procurement officer, State purchasing officer, designee, elected official, or State employee suspects collusion or other anticompetitive practice among any bidders, offerors, contractors, proposers, or employees of the State, a notice of the relevant facts shall be transmitted to the Attorney General and the chief procurement officer.

2. The bidder assures the Department that it has not failed to report any relevant facts concerning the practices addressed in Section 50-40 which may involve the contract for which the bid is submitted.

H. Confidentiality

1. The Illinois Procurement Code provides:

Section 50-45. Confidentiality. Any chief procurement officer, State purchasing officer, designee, or executive officer who willfully uses or allows the use of specifications, competitive bid documents, proprietary competitive information, proposals, contracts, or selection information to compromise the fairness or integrity of the procurement, bidding, or contract process shall be subject to immediate dismissal, regardless of the Personnel code, any contract, or any collective bargaining agreement, and may in addition be subject to criminal prosecution.

2. The bidder assures the Department that it has no knowledge of any fact relevant to the practices addressed in Section 50-45 which may involve the contract for which the bid is submitted.

RETURN WITH BID

I. Insider Information

1. The Illinois Procurement Act provides:

Section 50-50. Insider information. It is unlawful for any current or former elected or appointed State official or State employee to knowingly use confidential information available only by virtue of that office or employment for actual or anticipated gain for themselves or another person.

2. The bidder assures the Department that it has no knowledge of any facts relevant to the practices addressed in Section 50-50 which may involve the contract for which the bid is submitted.

III. CERTIFICATIONS

A. The certifications hereinafter made by the bidder are each a material representation of fact upon which reliance is placed should the Department enter into the contract with the bidder. The Department may terminate the contract if it is later determined that the bidder rendered a false or erroneous certification, and the surety providing the performance bond shall be responsible for completion of the contract.

B. Bribery

1. The Illinois Procurement Code provides:

Section 50-5. Bribery.

(a) Prohibition. No person or business shall be awarded a contract or subcontract under this Code who:

(1) has been convicted under the laws of Illinois or any other state of bribery or attempting to bribe an officer or employee of the State of Illinois or any other state in that officer's or employee's official capacity; or

(2) has made an admission of guilt of that conduct that is a matter of record but has not been prosecuted for that conduct.

(b) Businesses. No business shall be barred from contracting with any unit of State or local government as a result of a conviction under this Section of any employee or agent of the business if the employee or agent is no longer employed by the business and:

(1) the business has been finally adjudicated not guilty; or

(2) the business demonstrates to the governmental entity with which it seeks to contract, and that entity finds that the commission of the offense was not authorized, requested, commanded, or performed by a director, officer, or high managerial agent on behalf of the business as provided in paragraph (2) of subsection (a) of Section 5-4 of the Criminal Code of 1961.

(c) Conduct on behalf of business. For purposes of this Section, when an official, agent, or employee of a business committed the bribery or attempted bribery on behalf of the business and in accordance with the direction or authorization of a responsible official of the business, the business shall be chargeable with the conduct.

(d) Certification. Every bid submitted to and contract executed by the State shall contain a certification by the contractor that the contractor is not barred from being awarded a contract or subcontract under this Section. A contractor who makes a false statement, material to the certification, commits a Class 3 felony.

2. The bidder certifies that it is not barred from being awarded a contract under Section 50.5.

C. Educational Loan

1. Section 3 of the Educational Loan Default Act provides:

§ 3. No State agency shall contract with an individual for goods or services if that individual is in default, as defined in Section 2 of this Act, on an educational loan. Any contract used by any State agency shall include a statement certifying that the individual is not in default on an educational loan as provided in this Section.

2. The bidder, if an individual as opposed to a corporation, partnership or other form of business organization, certifies that the bidder is not in default on an educational loan as provided in Section 3 of the Act.

D. Bid-Rigging/Bid Rotating

1. Section 33E-11 of the Criminal Code of 1961 provides:

§ 33E-11. (a) Every bid submitted to and public contract executed pursuant to such bid by the State or a unit of local government shall contain a certification by the prime contractor that the prime contractor is not barred from contracting with any unit of State or local government as a result of a violation of either Section 33E-3 or 33E-4 of this Article. The State and units of local government shall provide the appropriate forms for such certification.

RETURN WITH BID

(b) A contractor who makes a false statement, material to the certification, commits a Class 3 felony.

A violation of Section 33E-3 would be represented by a conviction of the crime of bid-rigging which, in addition to Class 3 felony sentencing, provides that any person convicted of this offense or any similar offense of any state or the United States which contains the same elements as this offense shall be barred for 5 years from the date of conviction from contracting with any unit of State or local government. No corporation shall be barred from contracting with any unit of State or local government as a result of a conviction under this Section of any employee or agent of such corporation if the employee so convicted is no longer employed by the corporation and: (1) it has been finally adjudicated not guilty or (2) if it demonstrates to the governmental entity with which it seeks to contract and that entity finds that the commission of the offense was neither authorized, requested, commanded, nor performed by a director, officer or a high managerial agent in behalf of the corporation.

A violation of Section 33E-4 would be represented by a conviction of the crime of bid-rotating which, in addition to Class 2 felony sentencing, provides that any person convicted of this offense or any similar offense of any state or the United States which contains the same elements as this offense shall be permanently barred from contracting with any unit of State or local government. No corporation shall be barred from contracting with any unit of State or local government as a result of a conviction under this Section of any employee or agent of such corporation if the employee so convicted is no longer employed by the corporation and: (1) it has been finally adjudicated not guilty or (2) if it demonstrates to the governmental entity with which it seeks to contract and that entity finds that the commission of the offense was neither authorized, requested, commanded, nor performed by a director, officer or a high managerial agent in behalf of the corporation.

2. The bidder certifies that it is not barred from contracting with the Department by reason of a violation of either Section 33E-3 or Section 33E-4.

E. International Anti-Boycott

1. Section 5 of the International Anti-Boycott Certification Act provides:

§ 5. State contracts. Every contract entered into by the State of Illinois for the manufacture, furnishing, or purchasing of supplies, material, or equipment or for the furnishing of work, labor, or services, in an amount exceeding the threshold for small purchases according to the purchasing laws of this State or \$10,000.00, whichever is less, shall contain certification, as a material condition of the contract, by which the contractor agrees that neither the contractor nor any substantially-owned affiliated company is participating or shall participate in an international boycott in violation of the provisions of the U.S. Export Administration Act of 1979 or the regulations of the U.S. Department of Commerce promulgated under that Act.

2. The bidder makes the certification set forth in Section 5 of the Act.

F. Drug Free Workplace

1. The Illinois "Drug Free Workplace Act" applies to this contract and it is necessary to comply with the provisions of the "Act" if the contractor is a corporation, partnership, or other entity (including a sole proprietorship) which has 25 or more employees.

2. The bidder certifies that if awarded a contract in excess of \$5,000 it will provide a drug free workplace by:

(a) Publishing a statement notifying employees that the unlawful manufacture, distribution, dispensation, possession or use of a controlled substance, including cannabis, is prohibited in the contractor's workplace; specifying the actions that will be taken against employees for violations of such prohibition; and notifying the employee that, as a condition of employment on such contract, the employee shall abide by the terms of the statement, and notify the employer of any criminal drug statute conviction for a violation occurring in the workplace no later than five (5) days after such conviction.

(b) Establishing a drug free awareness program to inform employees about the dangers of drug abuse in the workplace; the contractor's policy of maintaining a drug free workplace; any available drug counseling, rehabilitation, and employee assistance programs; and the penalties that may be imposed upon employees for drug violations.

(c) Providing a copy of the statement required by subparagraph (1) to each employee engaged in the performance of the contract and to post the statement in a prominent place in the workplace.

(d) Notifying the Department within ten (10) days after receiving notice from an employee or otherwise receiving actual notice of the conviction of an employee for a violation of any criminal drug statute occurring in the workplace.

(e) Imposing or requiring, within 30 days after receiving notice from an employee of a conviction or actual notice of such a conviction, an appropriate personnel action, up to and including termination, or the satisfactory participation in a drug abuse assistance or rehabilitation program approved by a federal, state or local health, law enforcement or other appropriate agency.

(f) Assisting employees in selecting a course of action in the event drug counseling, treatment, and rehabilitation is required and indicating that a trained referral team is in place.

(g) Making a good faith effort to continue to maintain a drug free workplace through implementation of the actions and efforts stated in this certification.

G. Debt Delinquency

1. The Illinois Procurement Code provides:

Section 50-11 and 50-12. Debt Delinquency.

The contractor or bidder certifies that it, or any affiliate, is not barred from being awarded a contract under 30 ILCS 500. Section 50-11 prohibits a person from entering into a contract with a State agency if it knows or should know that it, or any affiliate, is delinquent in the payment of any debt to the State as defined by the Debt Collection Board. Section 50-12 prohibits a person from entering into a contract with a State agency if it, or any affiliate, has failed to collect and remit Illinois Use Tax on all sales of tangible personal property into the State of Illinois in accordance with the provisions of the Illinois Use Tax Act. The contractor further acknowledges that the contracting State agency may declare the contract void if this certification is false or if the contractor, or any affiliate, is determined to be delinquent in the payment of any debt to the State during the term of the contract.

H. Sarbanes-Oxley Act of 2002

1. The Illinois Procurement Code provides:

Section 50-60(c).

The contractor certifies in accordance with 30 ILCS 500/50-10.5 that no officer, director, partner or other managerial agent of the contracting business has been convicted of a felony under the Sarbanes-Oxley Act of 2002 or a Class 3 or Class 2 felony under the Illinois Securities Law of 1953 for a period of five years prior to the date of the bid or contract. The contractor acknowledges that the contracting agency shall declare the contract void if this certification is false.

I. ADDENDA

The contractor or bidder certifies that all relevant addenda have been incorporated in to this contract. Failure to do so may cause the bid to be declared unacceptable.

J. Section 42 of the Environmental Protection Act

The contractor certifies in accordance with 30 ILCS 500/50-12 that the bidder or contractor is not barred from being awarded a contract under this Section which prohibits the bidding on or entering into contracts with the State of Illinois or a State agency by a person or business found by a court or the Pollution Control Board to have committed a willful or knowing violation of Section 42 of the Environmental Protection Act for a period of five years from the date of the order. The contractor acknowledges that the contracting agency may declare the contract void if this certification is false.

K. Apprenticeship and Training Certification (Does not apply to federal aid projects)

In accordance with the provisions of Section 30-22 (6) of the Illinois Procurement Code, the bidder certifies that it is a participant, either as an individual or as part of a group program, in the approved apprenticeship and training programs applicable to each type of work or craft that the bidder will perform with its own forces. The bidder further certifies for work that will be performed by subcontract that each of its subcontractors submitted for approval either (a) is, at the time of such bid, participating in an approved, applicable apprenticeship and training program; or (b) will, prior to commencement of performance of work pursuant to this contract, begin participation in an approved apprenticeship and training program applicable to the work of the subcontract. The Department, at any time before or after award, may require the production of a copy of each applicable Certificate of Registration issued by the United States Department of Labor evidencing such participation by the contractor and each of its subcontractors. Unless otherwise directed in writing by the Department, applicable apprenticeship and training programs are those that have been approved and registered with the United States Department of Labor. The bidder shall list in the space below, the official name of the program sponsor holding the Certificate of Registration for all of the types of work or crafts in which the bidder is a participant and that will be performed with the bidder's forces. Types of work or craft work that will be subcontracted may be indicated as to be subcontracted.

The requirements of this certification and disclosure are a material part of the contract, and the contractor shall require this certification provision to be included in all approved subcontracts. In order to fulfill this requirement, it shall not be necessary that an applicable program sponsor be currently taking or that it will take applications for apprenticeship, training or employment during the performance of the work of this contract.

IV. DISCLOSURES

A. The disclosures hereinafter made by the bidder are each a material representation of fact upon which reliance is placed should the Department enter into the contract with the bidder. The Department may terminate the contract if it is later determined that the bidder rendered a false or erroneous disclosure, and the surety providing the performance bond shall be responsible for completion of the contract.

B. Financial Interests and Conflicts of Interest

1. Section 50-35 of the Illinois Procurement Code provides that all bids of more than \$10,000 shall be accompanied by disclosure of the financial interests of the bidder. This disclosed information for the successful bidder, will be maintained as public information subject to release by request pursuant to the Freedom of Information Act.

The financial interests to be disclosed shall include ownership or distributive income share that is in excess of 5%, or an amount greater than 60% of the annual salary of the Governor, of the bidding entity or its parent entity, whichever is less, unless the contractor or bidder is a publicly traded entity subject to Federal 10K reporting, in which case it may submit its 10K disclosure in place of the prescribed disclosure. If a bidder is a privately held entity that is exempt from Federal 10K reporting, but has more than 400 shareholders, it may submit the information that Federal 10K companies are required to report, and list the names of any person or entity holding any ownership share that is in excess of 5%. The disclosure shall include the names, addresses, and dollar or proportionate share of ownership of each person making the disclosure, their instrument of ownership or beneficial relationship, and notice of any potential conflict of interest resulting from the current ownership or beneficial interest of each person making the disclosure having any of the relationships identified in Section 50-35 and on the disclosure form.

In addition, all disclosures shall indicate any other current or pending contracts, proposals, leases, or other ongoing procurement relationships the bidding entity has with any other unit of state government and shall clearly identify the unit and the contract, proposal, lease, or other relationship.

2. Disclosure Forms. Disclosure Form A is attached for use concerning the individuals meeting the above ownership or distributive share requirements. Subject individuals should be covered each by one form. In addition, a second form (Disclosure Form B) provides for the disclosure of current or pending procurement relationships with other (non-IDOT) state agencies. **The forms must be included with each bid or incorporated by reference.**

C. Disclosure Form Instructions

Form A: For bidders that have previously submitted the information requested in Form A

The Department has retained the Form A disclosures submitted by all bidders responding to these requirements for the April 24, 1998 or any subsequent letting conducted by the Department. The bidder has the option of submitting the information again or the bidder may sign the following certification statement indicating that the information previously submitted by the bidder is, as of the date of signature, current and accurate. The Certification must be signed and dated by a person who is authorized to execute contracts for the bidding company. Before signing this certification, the bidder should carefully review its prior submissions to ensure the Certification is correct. If the Bidder signs the Certification, the Bidder should proceed to Form B instructions.

CERTIFICATION STATEMENT

I have determined that the Form A disclosure information previously submitted is current and accurate, and all forms are hereby incorporated by reference in this bid. Any necessary additional forms or amendments to previously submitted forms are attached to this bid.

(Bidding Company)

Name of Authorized Representative (type or print)

Title of Authorized Representative (type or print)

Signature of Authorized Representative

Date

Form A: For bidders who have NOT previously submitted the information requested in Form A

If the bidder is a publicly traded entity subject to Federal 10K reporting, the 10K Report may be submitted to meet the requirements of Form A. If a bidder is a privately held entity that is exempt from Federal 10K reporting, but has more than 400 shareholders, it may submit the information that Federal 10K companies are required to report, and list the names of any person or entity holding any ownership share that is in excess of 5%. If a bidder is not subject to Federal 10K reporting, the bidder must determine if any individuals are required by law to complete a financial disclosure form. To do this, the bidder should answer each of the following questions. A "YES" answer indicates Form A must be completed. If the answer to each of the following questions is "NO", then the NOT APPLICABLE STATEMENT on the second page of Form A must be signed and dated by a person that is authorized to execute contracts for the bidding company. Note: These questions are for assistance only and are not required to be completed.

1. Does anyone in your organization have a direct or beneficial ownership share of greater than 5% of the bidding entity or parent entity? YES ___ NO ___
2. Does anyone in your organization have a direct or beneficial ownership share of less than 5%, but which has a value greater than \$90,420.00? YES ___ NO ___
3. Does anyone in your organization receive more than \$90,420.00 of the bidding entity's or parent entity's distributive income? (Note: Distributive income is, for these purposes, any type of distribution of profits. An annual salary is not distributive income.) YES ___ NO ___
4. Does anyone in your organization receive greater than 5% of the bidding entity's or parent entity's total distributive income, but which is less than \$90,420.00? YES ___ NO ___
(Note: Only one set of forms needs to be completed per person per bid even if a specific individual would require a yes answer to more than one question.)

A "YES" answer to any of these questions requires the completion of Form A. The bidder must determine each individual in the bidding entity or the bidding entity's parent company that would cause the questions to be answered "Yes". Each form must be signed and dated by a person that is authorized to execute contracts for your organization. **Photocopied or stamped signatures are not acceptable.** The person signing can be, but does not have to be, the person for which the form is being completed. The bidder is responsible for the accuracy of any information provided.

If the answer to each of the above questions is "NO", then the NOT APPLICABLE STATEMENT on page 2 of Form A must be signed and dated by a person that is authorized to execute contracts for your company.

Form B: Identifying Other Contracts & Procurement Related Information Disclosure Form B must be completed for each bid submitted by the bidding entity. It must be signed by an individual who is authorized to execute contracts for the bidding entity. *Note: Signing the NOT APPLICABLE STATEMENT on Form A does not allow the bidder to ignore Form B. Form B must be completed, signed and dated or the bidder may be considered nonresponsive and the bid will not be accepted.*

The Bidder shall identify, by checking Yes or No on Form B, whether it has any pending contracts (including leases), bids, proposals, or other ongoing procurement relationship with any other (non-IDOT) State of Illinois agency. If "No" is checked, the bidder only needs to complete the signature box on the bottom of Form B. If "Yes" is checked, the bidder must do one of the following:

Option I: If the bidder did not submit an Affidavit of Availability to obtain authorization to bid, the bidder must list all non-IDOT State of Illinois agency pending contracts, leases, bids, proposals, and other ongoing procurement relationships. These items may be listed on Form B or on an attached sheet(s). Do not include IDOT contracts. Contracts with cities, counties, villages, etc. are not considered State of Illinois agency contracts and are not to be included. Contracts with other State of Illinois agencies such as the Department of Natural Resources or the Capital Development Board must be included. Bidders who submit Affidavits of Availability are suggested to use Option II.

Option II: If the bidder is required and has submitted an Affidavit of Availability in order to obtain authorization to bid, the bidder may write or type "See Affidavit of Availability" which indicates that the Affidavit of Availability is incorporated by reference and includes all non-IDOT State of Illinois agency pending contracts, leases, bids, proposals, and other ongoing procurement relationships. For any contracts that are not covered by the Affidavit of Availability, the bidder must identify them on Form B or on an attached sheet(s). These might be such things as leases.

D. Bidders Submitting More Than One Bid

Bidders submitting multiple bids may submit one set of forms consisting of all required Form A disclosures and one Form B for use with all bids. Please indicate in the space provided below the bid item that contains the original disclosure forms and the bid items which incorporate the forms by reference.

- The bid submitted for letting item _____ contains the Form A disclosures or Certification Statement and the Form B disclosures. The following letting items incorporate the said forms by reference:

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ILLINOIS DEPARTMENT OF TRANSPORTATION

Form A Financial Information & Potential Conflicts of Interest Disclosure

Contractor Name
Legal Address
City, State, Zip
Telephone Number Email Address Fax Number (if available)

Disclosure of the information contained in this Form is required by the Section 50-35 of the Illinois Procurement Code (30 ILCS 500). Vendors desiring to enter into a contract with the State of Illinois must disclose the financial information and potential conflict of interest information as specified in this Disclosure Form. This information shall become part of the publicly available contract file. This Form A must be completed for bids in excess of \$10,000, and for all open-ended contracts. A publicly traded company may submit a 10K disclosure (or equivalent if applicable) in satisfaction of the requirements set forth in Form A. See Disclosure Form Instructions.

DISCLOSURE OF FINANCIAL INFORMATION

1. Disclosure of Financial Information. The individual named below has an interest in the BIDDER (or its parent) in terms of ownership or distributive income share in excess of 5%, or an interest which has a value of more than \$90,420.00 (60% of the Governor's salary as of 7/1/01). (Make copies of this form as necessary and attach a separate Disclosure Form A for each individual meeting these requirements)

FOR INDIVIDUAL (type or print information)

NAME:

ADDRESS

Type of ownership/distributable income share:

stock sole proprietorship Partnership other: (explain on separate sheet):
% or \$ value of ownership/distributable income share:

2. Disclosure of Potential Conflicts of Interest. Check "Yes" or "No" to indicate which, if any, of the following potential conflict of interest relationships apply. If the answer to any question is "Yes", please attach additional pages and describe.

(a) State employment, currently or in the previous 3 years, including contractual employment of services. Yes ___ No ___

If your answer is yes, please answer each of the following questions.

- 1. Are you currently an officer or employee of either the Capitol Development Board or the Illinois Toll Highway Authority? Yes ___ No ___
2. Are you currently appointed to or employed by any agency of the State of Illinois? If you are currently appointed to or employed by any agency of the State of Illinois, and your annual salary exceeds \$90,420.00, (60% of the Governor's salary as of 7/1/01) provide the name the State agency for which you are employed and your annual salary.

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- 3. If you are currently appointed to or employed by any agency of the State of Illinois, and your annual salary exceeds \$90,420.00, (60% of the Governor's salary as of 7/1/01) are you entitled to receive (i) more than 7 1/2% of the total distributable income of your firm, partnership, association or corporation, or (ii) an amount in excess of the salary of the Governor? Yes ___ No ___

- 4. If you are currently appointed to or employed by any agency of the State of Illinois, and your annual salary exceeds \$90,420.00, (60% of the Governor's salary as of 7/1/01) are you and your spouse or minor children entitled to receive (i) more than 15% in aggregate of the total distributable income of your firm, partnership, association or corporation, or (ii) an amount in excess of 2 times the salary of the Governor? Yes ___ No ___

(b) State employment of spouse, father, mother, son, or daughter, including contractual employment for services in the previous 2 years.

Yes ___ No ___

If your answer is yes, please answer each of the following questions.

- 1. Is your spouse or any minor children currently an officer or employee of the Capitol Development Board or the Illinois Toll Highway Authority? Yes ___ No ___

- 2. Is your spouse or any minor children currently appointed to or employed by any agency of the State of Illinois? If your spouse or minor children is/are currently appointed to or employed by any agency of the State of Illinois, and his/her annual salary exceeds \$90,420.00, (60% of the Governor's salary as of 7/1/01) provide the name of the spouse and/or minor children, the name of the State agency for which he/she is employed and his/her annual salary. _____

3. If your spouse or any minor children is/are currently appointed to or employed by any agency of the State of Illinois, and his/her annual salary exceeds \$90,420.00, (60% of the salary of the Governor as of 7/1/01) are you entitled to receive (i) more than 7 1/2% of the total distributable income of your firm, partnership, association or corporation, or (ii) an amount in excess of the salary of the Governor? Yes ___ No ___

4. If your spouse or any minor children are currently appointed to or employed by any agency of the State of Illinois, and his/her annual salary exceeds \$90,420.00, (60% of the Governor's salary as of 7/1/01) are you and your spouse or any minor children entitled to receive (i) more than 15% in the aggregate of the total distributable income from your firm, partnership, association or corporation, or (ii) an amount in excess of 2 times the salary of the Governor? Yes ___ No ___

(c) Elective status; the holding of elective office of the State of Illinois, the government of the United States, any unit of local government authorized by the Constitution of the State of Illinois or the statutes of the State of Illinois currently or in the previous 3 years. Yes ___ No ___

(d) Relationship to anyone holding elective office currently or in the previous 2 years; spouse, father, mother, son, or daughter. Yes ___ No ___

(e) Appointive office; the holding of any appointive government office of the State of Illinois, the United State of America, or any unit of local government authorized by the Constitution of the State of Illinois or the statutes of the State of Illinois, which office entitles the holder to compensation in excess of the expenses incurred in the discharge of that office currently or in the previous 3 years. Yes ___ No ___

(f) Relationship to anyone holding appointive office currently or in the previous 2 years; spouse, father, mother, son, or daughter. Yes ___ No ___

(g) Employment, currently or in the previous 3 years, as or by any registered lobbyist of the State government. Yes ___ No ___

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(h) Relationship to anyone who is or was a registered lobbyist in the previous 2 years; spouse, father, mother, son, or daughter. Yes ___ No ___

(i) Compensated employment, currently or in the previous 3 years, by any registered election or reelection committee registered with the Secretary of State or any county clerk of the State of Illinois, or any political action committee registered with either the Secretary of State or the Federal Board of Elections. Yes ___ No ___

(j) Relationship to anyone; spouse, father, mother, son, or daughter; who was a compensated employee in the last 2 years by any registered election or re-election committee registered with the Secretary of State or any county clerk of the State of Illinois, or any political action committee registered with either the Secretary of State or the Federal Board of Elections. Yes ___ No ___

APPLICABLE STATEMENT

This Disclosure Form A is submitted on behalf of the INDIVIDUAL named on previous page.

Completed by: _____
Name of Authorized Representative (type or print)

Completed by: _____
Title of Authorized Representative (type or print)

Completed by: _____ Date _____
Signature of Individual or Authorized Representative

NOT APPLICABLE STATEMENT

I have determined that no individuals associated with this organization meet the criteria that would require the completion of this Form A.

This Disclosure Form A is submitted on behalf of the CONTRACTOR listed on the previous page.

Name of Authorized Representative (type or print)

Title of Authorized Representative (type or print)

Signature of Authorized Representative Date _____

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ILLINOIS DEPARTMENT
OF TRANSPORTATION

Form B
Other Contracts &
Procurement Related Information
Disclosure

Contractor Name		
Legal Address		
City, State, Zip		
Telephone Number	Email Address	Fax Number (if available)

Disclosure of the information contained in this Form is required by the Section 50-35 of the Illinois Procurement Act (30 ILCS 500). This information shall become part of the publicly available contract file. This Form B must be completed for bids in excess of \$10,000, and for all open-ended contracts.

DISCLOSURE OF OTHER CONTRACTS AND PROCUREMENT RELATED INFORMATION

1. Identifying Other Contracts & Procurement Related Information. The BIDDER shall identify whether it has any pending contracts (including leases), bids, proposals, or other ongoing procurement relationship with any other State of Illinois agency: Yes ___ No ___

If "No" is checked, the bidder only needs to complete the signature box on the bottom of this page.

2. If "Yes" is checked. Identify each such relationship by showing State of Illinois agency name and other descriptive information such as bid or project number (attach additional pages as necessary). SEE DISCLOSURE FORM INSTRUCTIONS:

THE FOLLOWING STATEMENT MUST BE SIGNED

Name of Authorized Representative (type or print)	

Title of Authorized Representative (type or print)	
_____	_____
Signature of Authorized Representative	Date

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SPECIAL NOTICE TO CONTRACTORS

The following requirements of the Illinois Department of Human Rights' Rules and Regulations are applicable to bidders on all construction contracts advertised by the Illinois Department of Transportation:

CONSTRUCTION EMPLOYEE UTILIZATION PROJECTION

- (a) All bidders on construction contracts shall complete and submit, along with and as part of their bids, a Bidder's Employee Utilization Form (Form BC-1256) setting forth a projection and breakdown of the total workforce intended to be hired and/or allocated to such contract work by the bidder including a projection of minority and female employee utilization in all job classifications on the contract project.
- (b) The Department of Transportation shall review the Employee Utilization Form, and workforce projections contained therein, of the contract awardee to determine if such projections reflect an underutilization of minority persons and/or women in any job classification in accordance with the Equal Employment Opportunity Clause and Section 7.2 of the Illinois Department of Human Rights' Rules and Regulations for Public Contracts adopted as amended on September 17, 1980. If it is determined that the contract awardee's projections reflect an underutilization of minority persons and/or women in any job classification, it shall be advised in writing of the manner in which it is underutilizing and such awardee shall be considered to be in breach of the contract unless, prior to commencement of work on the contract project, it submits revised satisfactory projections or an acceptable written affirmative action plan to correct such underutilization including a specific timetable geared to the completion stages of the contract.
- (c) The Department of Transportation shall provide to the Department of Human Rights a copy of the contract awardee's Employee Utilization Form, a copy of any required written affirmative action plan, and any written correspondence related thereto. The Department of Human Rights may review and revise any action taken by the Department of Transportation with respect to these requirements.

RETURN WITH BID

**Contract No. 70218
CLARK County
Section (24BR-1)BR
Project BRF-332(76)
Route FAP 332
District 5 Construction Funds**

PART II. WORKFORCE PROJECTION - continued

- B. Included in "Total Employees" under Table A is the total number of **new hires** that would be employed in the event the undersigned bidder is awarded this contract.

The undersigned bidder projects that: (number) _____ new hires would be recruited from the area in which the contract project is located; and/or (number) _____ new hires would be recruited from the area in which the bidder's principal office or base of operation is located.

- C. Included in "Total Employees" under Table A is a projection of numbers of persons to be employed directly by the undersigned bidder as well as a projection of numbers of persons to be employed by subcontractors.

The undersigned bidder estimates that (number) _____ persons will be directly employed by the prime contractor and that (number) _____ persons will be employed by subcontractors.

PART III. AFFIRMATIVE ACTION PLAN

- A. The undersigned bidder understands and agrees that in the event the foregoing minority and female employee utilization projection included under **PART II** is determined to be an underutilization of minority persons or women in any job category, and in the event that the undersigned bidder is awarded this contract, he/she will, prior to commencement of work, develop and submit a written Affirmative Action Plan including a specific timetable (geared to the completion stages of the contract) whereby deficiencies in minority and/or female employee utilization are corrected. Such Affirmative Action Plan will be subject to approval by the contracting agency and the **Department of Human Rights**.
- B. The undersigned bidder understands and agrees that the minority and female employee utilization projection submitted herein, and the goals and timetable included under an Affirmative Action Plan if required, are deemed to be part of the contract specifications.

Company _____ Telephone Number _____

Address _____

NOTICE REGARDING SIGNATURE

The Bidder's signature on the Proposal Signature Sheet will constitute the signing of this form. The following signature block needs to be completed only if revisions are required.

Signature: _____ Title: _____ Date: _____

- Instructions: All tables must include subcontractor personnel in addition to prime contractor personnel.
- Table A - Include both the number of employees that would be hired to perform the contract work and the total number currently employed (Table B) that will be allocated to contract work, and include all apprentices and on-the-job trainees. The "Total Employees" column should include all employees including all minorities, apprentices and on-the-job trainees to be employed on the contract work.
 - Table B - Include all employees currently employed that will be allocated to the contract work including any apprentices and on-the-job trainees currently employed.
 - Table C - Indicate the racial breakdown of the total apprentices and on-the-job trainees shown in Table A.

RETURN WITH BID

ADDITIONAL FEDERAL REQUIREMENTS

In addition to the Required Contract Provisions for Federal-Aid Construction Contracts (FHWA 1273), all bidders make the following certifications.

- A. By the execution of this proposal, the signing bidder certifies that the bidding entity has not, either directly or indirectly, entered into any agreement, participated in any collusion, or otherwise taken any action, in restraint of free competitive bidding in connection with the submitted bid. This statement made by the undersigned bidder is true and correct under penalty of perjury under the laws of the United States.
- B. CERTIFICATION, EQUAL EMPLOYMENT OPPORTUNITY:
1. Have you participated in any previous contracts or subcontracts subject to the equal opportunity clause. YES _____ NO _____
 2. If answer to #1 is yes, have you filed with the Joint Reporting Committee, the Director of OFCC, any Federal agency, or the former President's Committee on Equal Employment Opportunity, all reports due under the applicable filing requirements of those organizations? YES _____ NO _____

RETURN WITH BID

**Contract No. 70218
CLARK County
Section (24BR-1)BR
Project BRF-332(76)
Route FAP 332
District 5 Construction Funds**

PROPOSAL SIGNATURE SHEET

The undersigned bidder hereby makes and submits this bid on the subject Proposal, thereby assuring the Department that all requirements of the Invitation for Bids and rules of the Department have been met, that there is no misunderstanding of the requirements of paragraph 3 of this Proposal, and that the contract will be executed in accordance with the rules of the Department if an award is made on this bid.

(IF AN INDIVIDUAL) Firm Name _____
Signature of Owner _____
Business Address _____

(IF A CO-PARTNERSHIP) Firm Name _____
By _____
Business Address _____
Name and Address of All Members of the Firm: _____

(IF A CORPORATION) Corporate Name _____
By _____
Signature of Authorized Representative _____
Typed or printed name and title of Authorized Representative _____

(IF A JOINT VENTURE, USE THIS SECTION FOR THE MANAGING PARTY AND THE SECOND PARTY SHOULD SIGN BELOW) Attest _____
Signature _____
Business Address _____

(IF A JOINT VENTURE) Corporate Name _____
By _____
Signature of Authorized Representative _____
Typed or printed name and title of Authorized Representative _____

Attest _____
Signature _____
Business Address _____

If more than two parties are in the joint venture, please attach an additional signature sheet.

RETURN WITH BID



Illinois Department of Transportation

Division of Highways
Proposal Bid Bond
(Effective November 1, 1992)

Item No.
Letting Date

KNOW ALL MEN BY THESE PRESENTS, That We

as PRINCIPAL, and

as SURETY, are held jointly, severally and firmly bound unto the STATE OF ILLINOIS in the penal sum of 5 percent of the total bid price, or for the amount specified in Article 102.09 of the "Standard Specifications for Road and Bridge Construction" in effect on the date of invitation for bids, whichever is the lesser sum, well and truly to be paid unto said STATE OF ILLINOIS, for the payment of which we bind ourselves, our heirs, executors, administrators, successors and assigns.

THE CONDITION OF THE FOREGOING OBLIGATION IS SUCH, That Whereas, the PRINCIPAL has submitted a bid proposal to the STATE OF ILLINOIS, acting through the Department of Transportation, for the improvement designated by the Transportation Bulletin Item Number and Letting Date indicated above.

NOW, THEREFORE, if the Department shall accept the bid proposal of the PRINCIPAL; and if the PRINCIPAL shall, within the time and as specified in the bidding and contract documents, submit a DBE Utilization Plan that is accepted and approved by the Department; and if, after award by the Department, the PRINCIPAL shall enter into a contract in accordance with the terms of the bidding and contract documents including evidence of the required insurance coverages and providing such bond as specified with good and sufficient surety for the faithful performance of such contract and for the prompt payment of labor and material furnished in the prosecution thereof; or if, in the event of the failure of the PRINCIPAL to make the required DBE submission or to enter into such contract and to give the specified bond, the PRINCIPAL pays to the Department the difference not to exceed the penalty hereof between the amount specified in the bid proposal and such larger amount for which the Department may contract with another party to perform the work covered by said bid proposal, then this obligation shall be null and void, otherwise, it shall remain in full force and effect.

IN THE EVENT the Department determines the PRINCIPAL has failed to comply with any requirement as set forth in the preceding paragraph, then Surety shall pay the penal sum to the Department within fifteen (15) days of written demand therefor. If Surety does not make full payment within such period of time, the Department may bring an action to collect the amount owed. Surety is liable to the Department for all its expenses, including attorney's fees, incurred in any litigation in which it prevails either in whole or in part.

In TESTIMONY WHEREOF, the said PRINCIPAL and the said SURETY have caused this instrument to be signed by their respective officers this day of A.D.,

PRINCIPAL SURETY
(Company Name)
By: (Signature & Title) By: (Signature of Attorney-in-Fact)

Notary Certification for Principal and Surety

STATE OF ILLINOIS,
COUNTY OF

I, a Notary Public in and for said County, do hereby certify that and

(Insert names of individuals signing on behalf of PRINCIPAL & SURETY)

who are each personally known to me to be the same persons whose names are subscribed to the foregoing instrument on behalf of PRINCIPAL and SURETY, appeared before me this day in person and acknowledged respectively, that they signed and delivered said instrument as their free and voluntary act for the uses and purposes therein set forth.

Given under my hand and notarial seal this day of, A.D.

My commission expires Notary Public

In lieu of completing the above section of the Proposal Bid Form, the Principal may file an Electronic Bid Bond. By signing below the Principal is ensuring the identified electronic bid bond has been executed and the Principal and Surety are firmly bound unto the State of Illinois under the conditions of the bid bond as shown above.

Electronic Bid Bond ID# Company/Bidder Name Signature and Title

PROPOSAL ENVELOPE



PROPOSALS

for construction work advertised for bids by the
Illinois Department of Transportation

Item No.	Item No.	Item No.

Submitted By:

Name:
Address:
Phone No.

Bidders should use an IDOT proposal envelope or affix this form to the front of a 10" x 13" envelope for the submittal of bids. If proposals are mailed, they should be enclosed in a second or outer envelope addressed to:

Engineer of Design and Environment - Room 323
Illinois Department of Transportation
2300 South Dirksen Parkway
Springfield, Illinois 62764

NOTICE

Individual bids, including Bid Bond and/or supplemental information if required, should be securely stapled.

CONTRACTOR OFFICE COPY OF CONTRACT SPECIFICATIONS

NOTICE

None of the following material needs to be returned with the bid package unless the special provisions require documentation and/or other information to be submitted.

**Contract No. 70218
CLARK County
Section (24BR-1)BR
Project BRF-332(76)
Route FAP 332
District 5 Construction Funds**



Illinois Department of Transportation



1. **TIME AND PLACE OF OPENING BIDS.** Sealed proposals for the improvement described herein will be received by the Department of Transportation at the Harry R. Hanley Building, 2300 South Dirksen Parkway, in Springfield, Illinois until 10:00 o'clock a.m., January 21, 2005. All bids will be gathered, sorted, publicly opened and read in the auditorium at the Department of Transportation's Harry R. Hanley Building shortly after the 10:00 a.m. cut off time.
2. **DESCRIPTION OF WORK.** The proposed improvement is identified and advertised for bids in the Invitation for Bids as:

**Contract No. 70218
CLARK County
Section (24BR-1)BR
Project BRF-332(76)
Route FAP 332
District 5 Construction Funds**

This project consists of removal and replacement of the existing bridge carrying Illinois Route 1 over Mill Creek, north of West Union.

3. **INSTRUCTIONS TO BIDDERS.** (a) This Notice, the invitation for bids, proposal and letter of award shall, together with all other documents in accordance with Article 101.09 of the Standard Specifications for Road and Bridge Construction, become part of the contract. Bidders are cautioned to read and examine carefully all documents, to make all required inspections, and to inquire or seek explanation of the same prior to submission of a bid.

(b) State law, and, if the work is to be paid wholly or in part with Federal-aid funds, Federal law requires the bidder to make various certifications as a part of the proposal and contract. By execution and submission of the proposal, the bidder makes the certification contained therein. A false or fraudulent certification shall, in addition to all other remedies provided by law, be a breach of contract and may result in termination of the contract.
4. **AWARD CRITERIA AND REJECTION OF BIDS.** This contract will be awarded to the lowest responsive and responsible bidder considering conformity with the terms and conditions established by the Department in the rules, Invitation for Bids and contract documents. The issuance of plans and proposal forms for bidding based upon a prequalification rating shall not be the sole determinant of responsibility. The Department reserves the right to determine responsibility at the time of award, to reject any or all proposals, to readvertise the proposed improvement, and to waive technicalities.

By Order of the
Illinois Department of Transportation

Timothy W. Martin, Secretary

BD 351 (Rev. 01/2003)

INDEX
 FOR
 SUPPLEMENTAL SPECIFICATIONS
 AND RECURRING SPECIAL PROVISIONS

Adopted January 1, 2004

This index contains a listing of SUPPLEMENTAL SPECIFICATIONS and frequently used RECURRING SPECIAL PROVISIONS.

ERRATA Standard Specifications for Road and Bridge Construction
 (Adopted 1-1-02) (Revised 1-1-04)

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STATE OF ILLINOIS

SPECIAL PROVISIONS

The following Special Provisions supplement the "Standard Specifications for Road and Bridge Construction," adopted January 1, 2002, the latest edition of the "Manual on Uniform Traffic Control Devices for Streets and Highways," and the "Manual of Test Procedures for Materials" in effect on the date of invitation for bids, and the Supplemental Specifications and Recurring Special Provisions indicated on the Check Sheet included herein which apply to and govern the construction of FAP Route 332 (IL 1), Project BHF-0332(076), Section (24BR-1)BR in Clark County and in case of conflict with any part or parts of said Specifications, the said Special Provisions shall take precedence and shall govern.

INTENT OF PROJECT

The intent of this section is to remove and replace the existing superstructure with a precast-prestressed concrete I-beam superstructure to correct structural deficiencies. During the course of construction, the Contractor shall schedule construction operations so as to cause the least amount of disruption to the traveling public and shall take appropriate precautions to protect and preserve the surrounding environment.

DESCRIPTION OF WORK

The work included in this section consists primarily of 1) Removal and replacement of the existing two span 22 beam precast-prestressed concrete box beam structure with a three span 18 beam precast-prestressed concrete I-beam structure; 2) Removal and replacement of 32 ½ feet wide by 20 feet long approach pavement with a proposed 32 feet wide, by 30 feet long approach pavement on each side of said structure; 3) Remove and replace all existing guardrail and terminals 4) Resurfacing of 741.9 feet with a 30 foot butt joint at each end of the resurfacing; 5) Construction of earthwork, seeding, pavement striping and all other items necessary to complete the work.

TRAFFIC CONTROL PLAN

Eff. 09-11-90
Rev.: 01-06-99

Traffic control shall be in accordance with the applicable sections of the Standard Specifications for Road and Bridge Construction, the applicable guidelines contained in the Illinois Manual on Uniform Traffic Control Devices for Streets and Highways, these Special Provisions and any special details and highway standards contained herein and in the plans.

Special attention is called to Articles 107.09 and 107.14 of the Standard Specifications, the following Highway Standards relating to Traffic Control, and the listed Supplemental Specifications and Recurring Special Provisions.

Highway Standards:	701006	701011	701301	701311
	701321	701326	702001	

Traffic: It is the intention of the Department that FAP 332 (IL 1) be kept open to traffic at all times during the construction of this section. One-way traffic will be permitted in the immediate work areas during construction. At all other times, two-way traffic shall be maintained throughout the project.

At any particular location, the contractor shall work only on one side of the pavement at a time and shall keep equipment, materials, and vehicles off the pavement and shoulder right-of-way on the side which pavement is open to traffic.

The Contractor shall provide and maintain access to commercial and private properties abutting the highway being improved in accordance with Article 107.09 of the Standard Specification. Access to commercial property shall at no time be shut off completely and at no time shall a private entrance be closed for an extended period of time as determined by the Engineer.

The following traffic control standards shall be utilized during, but not limited to, the listed construction operations:

TRAFFIC CONTROL AND PROTECTION, STANDARD 701006

Traffic Control and Protection, Standard 701006 shall be used for the operations of guardrail installation and any other construction operations that encroach closer than 15 feet from the edge of pavement. Traffic Control and Protection, Standard 701006 will not be measured for payment.

TRAFFIC CONTROL AND PROTECTION, STANDARD 701011

Traffic Control and Protection, Standard 701011 shall be used on the project during shoulder work and any other construction operation where at any time any vehicle, equipment, workers or their activities require intermittent or continuous moving operation on the shoulder, where the average speed is 1 mph or less. Traffic Control and Protection, Standard 701011 will not be measured for payment in accordance with Article 701.07(a) of the Standard Specifications.

TRAFFIC CONTROL AND PROTECTION, STANDARD 701301

Traffic Control and Protection, Standard 701301 shall be used for stringline, and minor clean-up operations. Traffic Control and Protection, Standard 701301 will not be measured for payment.

TRAFFIC CONTROL AND PROTECTION, STANDARD 701311

Traffic Control and Protection, Standard 701311 shall be used for pavement marking operations, unless workers are on the pavement. Traffic Control and Protection, Standard 701311 will not be measured for payment.

TRAFFIC CONTROL AND PROTECTION, STANDARD 701321

5-701-OP-1-02

Eff: 05-01-02

Rev: 01-13-04

This work shall be in accordance with Article 701 and the highway standard with the following additional information:

BASE COURSE (OPTION)

Eff: 08/02/04

The Contractor shall have the option of constructing the shoulder widening from 591+06.00 to 600+14.00 from the following options:

1. Portland Cement Concrete Base Course, 8"
2. Bituminous Concrete Base Course Widening, Superpave, 9.25"

If the bituminous option is used, it shall meet the requirements of Bituminous Concrete Base Course Widening, Superpave, 9.25.

The Contractor, at the Preconstruction Conference, shall make known which type of base course will be constructed.

Prior to the placement of the Base Course, the Contractor shall form a perpendicular straight joint by machine-sawing or by using milling equipment along the existing pavement, to the proposed depth of the Base Course, and removing and disposing of that outside portion of the existing pavement.

This work shall be completed according to the applicable portions of Sections 202, 354, and 356 of the Standard Specifications. The earth excavation computations for this section are based on the bituminous option, and shall be revised if the concrete option is used.

This work will be measured for payment in place and the area computed in square yards (square meters). The width shall be as shown on the plans.

This work will be paid for at the contract unit price per square yard (square meter) for BASE COURSE (OPTION), which price shall include the work as specified herein, and no additional compensation will be allowed for any changes resulting from the Contractor's choice of options.

BITUMINOUS RESURFACING

Effective: 01/27/2000

Revised: 04/19/2004

Revise the first paragraph of Article 406.18 as follows:

“406.18 Butt Joints. Butt joints shall be constructed according to the details shown on the plans. The surface removal shall be performed according to Section 440. Construction of butt joints shall not begin prior to beginning general operations on the project.

When butt joints are to be constructed under traffic, temporary ramps shall be constructed and maintained at both the upstream and downstream ends of the surface removal areas immediately upon completion of the surface removal operation. The temporary ramps shall be constructed by the following methods.

- (a) Temporary Bituminous Ramps. Temporary bituminous ramps shall have a minimum taper rate of 1:40 (V:H). For Interstates and Expressways with posted speed limits of 55 mph or greater, ramps shall be constructed of hot mix bituminous concrete surface course or binder course, and shall have a minimum taper rate of 1:120 (V:H). The bituminous material used shall meet the approval of the Engineer. Cold-milled bituminous tailings will not be acceptable.
- (b) Temporary Rubber Ramps. Temporary rubber ramps shall only be used on roadways with permanent posted speeds of 45 mph or less. The ramps shall have a minimum taper rate of 1:30 (V:H). The leading edge of the rubber ramp shall have a maximum thickness of ¼ inch (6 mm) and the trailing edge shall match the height of the adjacent pavement ± ¼ inch (6 mm).

The rubber material shall conform to the following:

Property	Test Method	Requirement
Durometer Hardness, Shore A	ASTM D 2240	80 ±10
Tensile Strength	ASTM D 412	800 psi (5500 kPa) min.
Elongation, percent	ASTM D 412	100 min.
Specific Gravity	ASTM D 297	1.1-1.3
Brittleness	ASTM D 746	-40 °C (-40 °F)

The rubber ramps shall be installed according to the manufacturer's specifications and fastened with the anchors provided. Rubber ramps that fail to stay in place or create a traffic hazard shall be replaced immediately with temporary bituminous ramps at the Contractor's expense.

The temporary ramps shall be removed just prior to placing the proposed surface course. If work is suspended for the winter season prior to completion of surface course construction, precut butt joints shall be filled to the elevation of the existing pavement surface with compacted bituminous concrete surface course or binder course."

GUARD RAIL REMOVAL AND INSTALLATION

5-630OP5-94

Eff. 09-11-90

Rev.: 01-01-97

This work shall be done in accordance with Sections 630, 632, and 701.05(f) of the Standard Specifications and as modified herein:

During the removal of guard rail, posts shall not be exposed overnight without rail elements.

New or additional guard rail shall be completed within three days after the posts have been installed.

Guard rail stored on the right-of-way prior to installation shall be placed against the posts or at the shoulder line.

Any inconvenience or delays caused the Contractor in complying with this Special Provision will be considered as incidental to the various pay items for guard rail removal and guard rail installation and no additional compensation will be allowed

GUARDRAIL INSTALLATION TIME

5-632PD1-99

Eff. 01-29-99

Add the following to the end of the third paragraph of Article 701.05(f):

“Should the guardrail reinstallation be delayed beyond 10 calendar days following any removal of the existing guardrail, the contractor will be required to protect the hazard with attenuator drums or other redirective devices acceptable to the Engineer.

When Standard 701401 is specified in the contract for other construction operations and lane closures are required in accordance with Article 701.06(f) of the Standard Specifications, or when the incomplete reinstallation is located behind temporary concrete barriers required for traffic control in accordance with the contract, attenuator drums or other redirective devices will not be required in addition to the lane closure for protection of the hazards created by incomplete guardrail installations.”

PNEUMATIC-TIRED ROLLER FOR SUPERPAVE

5-406OP6-98

Eff. 10-01-98

Rev. 02-11-04

For all Superpave Bituminous Concrete Mixtures placed at a rate exceeding 85 tons per hour (75 metric tons per hour), a pneumatic-tired roller will be required as the intermediate roller. This roller shall meet the requirements of Table 1 of Article 406.16 of the Standard Specifications. This provision shall hold over any other requirements included elsewhere in the contract.

This work will not be measured for payment or paid for separately, but shall be considered as included in the price per ton (metric ton) or square yard (square meter) of the various items of BITUMINOUS CONCRETE MIXTURES SUPERPAVE, CLASS I, of the mixture, type, and thickness (if applicable) specified.

PROTECTION OF PRAIRIE REMNANT AND SAVANNA

In order to preserve several areas of prairie and savanna along Illinois Route 1, the contractor will be required to construct temporary fencing and erect “NO INTRUSION” signage along existing / proposed permanent easements and along temporary easements at the locations designated in the plans and specified by the engineer.

In addition, under no circumstances will any staging, parking or maneuvering of machinery, storage of equipment or materials, or any other disturbances by the contractor be allowed on Northeast side of the Bridge, LT. Sta. 591+10 to Lt 595+43.35 (approximate northeast bank station of Mill Creek), from 15' from edge of existing pavement to the abandoned railroad. The contractor will not be allowed outside the limits of the temporary fencing.

RAISED REFLECTIVE PAVEMENT MARKER REMOVAL
5-783PD1-97

Eff. 10-22-97
Rev. 02-11-2004

Delete the last sentence of the second paragraph of Article 783.03(a).

Replace Article 783.03(b) with the following:

“Where removal of raised reflective markers is indicated in the plans, this shall consist of complete removal of the castings, and reflectors from the pavement structure. Where cold milling is not proposed, or where the proposed depth of cold milling is less than 1½ inches (38 mm), the holes resulting from the removal of raised reflective markers shall immediately be cleaned out with compressed air, filled with a bituminous mixture meeting the requirements of Article 406.11, and compacted to the satisfaction of the Engineer. This work shall be completed prior to cold milling, or prior to bituminous concrete placement if cold milling is not specified.”

Add the following at the end of Article 783.06:

“The payment for RAISED REFLECTIVE MARKER REMOVAL shall include complete removal and disposal of the castings and reflectors, and furnishing, placing, and compacting the bituminous material in the holes as specified above.”

SEEDING

Due to the small quantity of seeding needed on this project, all seeding, fertilizer, mulch shall be considered as included in the cost of the Bridge Approach Pavement. This shall include Seeding Class 2, Seeding Class 7, Mulch Method 2, Nitrogen Fertilizer Nutrients, Phosphorus Fertilizer Nutrients, Potassium Fertilizer Nutrients, all equipment, and labor necessary to complete this item and no additional compensation shall be allowed.

Note: Seeding Class 7, and Mulch Method 2 are included in this contract to seed new earth shoulders during time periods when permanent seeding is not allowed. Some or all of the Class 7 seeding and Mulch will be deleted if it is possible to place permanent seeding on earth shoulders at the time of their completion.

The following estimated quantities have been included for informational purposes only:

<u>Item</u>	<u>Area</u>	<u>Amount</u>
Seeding, Class 2	0.10 acres	22.3 lbs
Alta Fescue		11 lbs
Per. Ryegrass		5.7 lbs
Creeping Red Fescue		4.3 lbs
Red Top		1.3 lbs
Seeding, Class 7	0.10 acres	
Turf Cover		5.7 lbs
Mixture		7.0 lbs
Mulch Method 2	0.10 acres	0.20 Tons
Nitrogen Fert. Nutrients	0.10 acres	10.0 lbs
Phosphorus Fert. Nutrients	0.10 acres	10.0 lbs
Potassium Fert. Nutrients	0.10 acres	10.0 lbs

STRINGLINE

5-440PD21-94

Eff. 11-27-91

Rev.10-13-99

Some or all of the cold-milling and binder on this section is intended as the first step toward establishing the proposed profile grade. In these locations which are shown in the plans, the milling and binder will be controlled by stringline(s) erected, maintained and removed and disposed of by the Contractor.

The cost of providing, erecting, maintaining, removing, disposing of and employing the stringline as the grade control will not be paid for separately but shall be considered as included in the COLD-MILLING or BITUMINOUS CONCRETE BINDER COURSE, SUPERPAVE pay item involved.

TEMPORARY PORTABLE BRIDGE TRAFFIC SIGNALS

Effective: August 1, 2003

Revised: February 11, 2004

At the Contractor's option, a portable traffic signal system may be used in place of the temporary bridge traffic signal system. The work shall be according to Sections 701 and 890 of the Standard Specifications except as modified herein. The installation shall be according to applicable portions of Standard 701316 or 701321.

Portable Traffic Signal System Equipment Requirements. The system shall consist of two or more self-contained trailer mounted units each consisting of two signal heads. One signal head shall be mounted on a mast arm capable of extending over the center of the travel lane. The system shall meet the physical display and operational requirements of conventional traffic signals as specified in Part IV of the Manual on Uniform Traffic Control Devices (MUTCD). Signal heads shall have 12" lenses and conform to ITE Specification "Vehicle Traffic Control Signal Heads" and NEMA Standards TS1 and TS2. All signal heads shall be equipped with visors and back plates.

The system shall include a solid state digital traffic signal controller capable of operating the signals in accordance with MUTCD requirements and NEMA Standard TS1. The portable traffic signal system shall have conflict monitoring to ensure that conflicting indications are not displayed. The conflict monitor shall detect the presence of conflicting signal indications, the absence of proper voltages and the proper operation of the controller. Upon detection of a conflict or loss of communication, all signals will enter into flashing red mode.

The operating temperature of the signal system shall be between -30F to 120F (-34C to 49C).

Each portable unit shall contain a solar cell system to facilitate battery charging. There shall be a minimum of 12 days backup reserve battery supply and the units shall be capable of operating with a 120V power supply from a generator or electrical service.

The portable traffic signal installation shall be set up securely and leveled in a manner approved by the Engineer.

Portable Traffic Signal System Operational Requirements. The Department shall be notified 72 hours prior to turn on for timing approval and verification. A qualified vendor representative shall be on site to perform the initial set up and enter the timing parameters. The portable traffic signal installation shall be set up securely and leveled in a manner approved by the Engineer.

All portable traffic signals shall be programmed for red flash upon startup, conflict or power failure. The portable traffic signal system shall be programmed to dwell in all-red.

There shall be a minimum of two traffic signal heads per each approach. All signal heads located over the traveled lane shall be mounted at a minimum height of 17 ft. (5.2 m) from the bottom of the signal head back plate to the top of the road surface. All signal heads located outside the traveled lane shall be mounted at a minimum height of 8 ft. (2.4 m) from the bottom of the signal head back plate to the top of the adjacent travel lane surface.

As an alternative to loop detection, portable traffic signals may be equipped with microwave sensors or other approved methods of vehicle detection and traffic actuation. All portable traffic signal units shall be interconnected using a hardwire communication cable.

The system shall be capable of providing control for up to eight separate traffic phases. When an additional phase is used for a side road movement, only one long all red interval shall be used between active phases on each side of the work area. The all red clearance time shall be programmable from 1 to 250 seconds in one-second increments.

In the event of a traffic signal malfunction or a continuous red flash mode, flaggers shall be required on a 24 hour, 7 day a week basis until repairs are made and the traffic signals are fully functional.

When not being utilized to inform and direct traffic, portable signals shall be treated as non-operating equipment in accordance with Article 701.04(b) (3).

Basis of Payment. The above work shall be paid for at the contract unit price for TEMPORARY BRIDGE TRAFFIC SIGNALS and shall be payment in full for supplying and installing and operating the temporary portable traffic signal system, complete.

70218SP.DOC

BITUMINOUS BASE COURSE SUPERPAVE OR BITUMINOUS BASE COURSE WIDENING, SUPERPAVE

5-355PD3-00

Eff. 11-08-2000
Rev. 02-09-2004

This work shall be according to Section 355 for Base Course, or Section 356 for Base Course Widening, except the mixtures and materials shall be according to the requirements for Superpave Bituminous Concrete Mixtures included elsewhere in this contract.

Unless otherwise shown in the contract, either the IL-19.0 or IL-25.0 gradation will be allowed. Further, unless otherwise shown in the contract, the performance graded asphalt cement and number of design gyrations for the mixture shall be the same as for other resurfacing mixtures specified to overlay the Base Course or Base Course Widening shown in the plans. Polymer modified asphalt cement will not be required for the Base Course or Base Course Widening.

Construction Requirement and Method of Measurement shall apply according to Sections 355 or 356 per the pay item involved.

This work will be paid for at the contract unit price per square yard (square meter) for BITUMINOUS BASE COURSE SUPERPAVE or BITUMINOUS BASE COURSE WIDENING, SUPERPAVE, of the thickness specified.

WIDTH RESTRICTION AND MAXIMUM WIDTH SIGNING
5-701PD5-99

Eff. 12-7-99
Rev 05-21-2001

The work within this contract will cause a width restriction requiring “maximum width” signing. The Bureau of Operations will provide all “maximum width” signs to be erected at locations shown within the plans. The Traffic Operations Engineer shall be given two weeks notice prior to the start of the project in order to fabricate the signs. The contractor shall be responsible for picking up the signs at the District Office, erecting the signs at the designated locations, maintaining the signs during the course of the work, removing the signs upon completion of the work, and delivering the signs back to the District Office in an acceptable condition. The Contractor will be responsible for replacing any sign that the Engineer determines has been damaged beyond normal wear. The Engineer shall be the sole judge of damage and normal wear.

All width restrictions shall be removed from the roadway(s) during the “winter period”, defined as being from December 1st of one year through March 31st of the succeeding year. If width restrictions are not removed during this time, the Contractor shall be liable to the Department for liquidated damages per calendar day, and based upon the full Original Contract Amount according to Article 108.09.

This work shall be included in TRAFFIC CONTROL AND PROTECTION, STANDARD 701321 with no additional compensation allowed.

STATUS OF UTILITIES

The following utilities are involved in this project. The utility companies have provided the estimated dates.

<u>Name & Address of Utility</u>	<u>Type</u>	<u>Location</u>	<u>Adjustment or Relocation</u>
Mrs. Michele Lewsader *Verizon North, Inc. ILL030I 212 E. Grove St. Rantoul, IL 61866 (217) 892-3427	Fiber optic telephone	along the west ROW on public and private easement.	Not required

The above represents the best information of the Department and is only include for the convenience of the bidder. The applicable provisions of Sections 102, 103, and Articles 105.07, 107.20, 107.31, and 108.02 of the Standard Specifications for Road and Bridge Construction shall apply.

The estimated utility relocation dates should be part of the progress schedule submitted by the contractor. If any utility adjustments or relocations have not been completed by the above dates specified and when required by the contractor's operations after these dates, the contractor should notify the Engineer in writing. A request for an extension of time will be considered of the extent the Contractor's critical path schedule is affected.

Toll Free J.U.L.I.E. Telephone Number (800) 892-0123
 * = J.U.L.I.E. Member

TEMPORARY SHEET PILING

Effective: September 2, 1994
 Revised: December 13, 2002

Description. This work shall consist of furnishing, driving, adjusting for stage construction when required and subsequent removal of the sheet piling according to the dimensions and details shown on the plans and according to the applicable portions of Section 512 of the Standard Specifications.

This work shall also include furnishing, installing and subsequent removal of all miscellaneous steel shapes, plates and connecting hardware when required to attach the sheeting to an existing substructure unit and/or to facilitate stage construction.

General. The Contractor may propose other means of supporting the sides of the excavation provided they are done so at no extra cost to the department. If the Contractor elects to vary from the design requirements shown on the plans, the revised design calculations and details shall be submitted to the Engineer for approval. The calculations shall be prepared and sealed by an Illinois Licensed Structural Engineer. This approval will not relieve the Contractor of responsibility for the safety of the excavation. Approval shall be contingent upon acceptance by all involved utilities and/or railroads.

Material. The sheet piling shall be made of steel and may be new or used material, at the option of the Contractor. The sheet piling shall have a minimum section modulus as shown on the plans or in the approved Contractor's alternate design. The sheeting shall have a minimum yield strength of 265 MPa (38.5 ksi) unless otherwise specified. The sheeting, used by the Contractor, shall be identifiable and in good condition free of bends and other structural defects. The Contractor shall furnish a copy of the published sheet pile section properties to the Engineer for verification purposes. The Engineer's approval will be required prior to driving any sheeting. All driven sheeting not approved by the Engineer shall be removed at the Contractor's expense.

Construction. The Contractor shall verify locations of all underground utilities before driving any sheet piling. Any disturbance or damage to existing structures, utilities or other property, caused by the Contractor's operation, shall be repaired by the Contractor in a manner satisfactory to the Engineer at no additional cost to the Department. The Contractor shall be responsible for determining the appropriate equipment necessary to drive the sheeting to the tip elevation(s) specified on the plans or according to the Contractor's approved design. The sheet piling shall be driven, as a minimum, to the tip elevation(s) specified, prior to commencing any related excavation. If unable to reach the minimum tip elevation, the adequacy of the sheet piling design will require re-evaluation by the Department prior to allowing excavation adjacent to the sheet piling in question. The Contractor shall not excavate below the maximum excavation line shown on the plans without the prior permission of the Engineer. The sheet piling shall remain in place until the Engineer determines it is no longer required.

The sheet piling shall be removed and disposed of by the Contractor when directed by the Engineer. When allowed, the Contractor may elect to cut off a portion of the sheet piling leaving the remainder in place. The remaining sheet piling shall be a minimum of 300 mm (12 in.) below the finished grade or as directed by the Engineer. Removed sheet piling shall become the property of the Contractor.

When an obstruction is encountered, the Contractor shall notify the Engineer and upon concurrence of the Engineer, the Contractor shall begin working to break up, push aside, or remove the obstruction. An obstruction shall be defined as any object (such as but not limited to, boulders, logs, old foundations etc.) where it's presence was not obvious or specifically noted on the plans prior to bidding, that cannot be driven through or around with normal driving procedures, but requires additional excavation or other procedures to remove or miss the obstruction.

Method of Measurement. The temporary sheet piling will be measured for payment in place in square meters (square feet). Any temporary sheet piling cut off, left in place, or driven to dimensions other than those shown on the contract plans without the written permission of the Engineer, shall not be measured for payment but shall be done at the contractor's expense.

If the Contractor is unable to drive the sheeting to the specified tip elevation(s) and can demonstrate that any further effort to drive it would only result in damaging the sheeting, then the Contractor shall be paid based on the plan quantity of temporary sheeting involved. However, no additional payment will be made for any walers, bracing, or other supplement to the temporary sheet piling, which may be required as a result of the re-evaluation in order to insure the original design intent was met.

Basis of Payment. This work will be paid for at the contract unit price per square meter (square foot) for TEMPORARY SHEET PILING.

Payment for any excavation performed in conjunction with this work will not be included in this item but shall be paid for as specified elsewhere in this contract.

Obstruction mitigation shall be paid for according to Article 109.04 of the Standard Specifications.

UNDERWATER STRUCTURE EXCAVATION PROTECTION

Effective: April 1, 1995

Revised: August 21, 2002

Description. This work shall include all labor, materials, and equipment necessary for the protection of any excavations in water that may be needed for construction at the locations shown on the plans and as required by the Specifications. The protection may consist of diverting the water for the excavation by the uses of timbers, sheet piling, approved granular embankment material or other structural elements adequate to support the excavation and need not be watertight. All concrete placement below the waterline shall be tremied underwater into forms according to Article 503.08 of the Standard Specifications. Tremied concrete shall be placed to an elevation 300 mm (1 ft) above the water level at the time of construction.

The Contractor's plan for the subject protection must be approved by the Engineer before excavation protection and construction may begin. Any system selected by the Contractor in which safe design and construction requires that loads and stresses be computed and the size and strength of parts determined by mathematical calculations based upon scientific principles and engineering data shall be prepared and sealed by an Illinois Licensed Structural Engineer. When the excavation protection is no longer required, it shall be removed unless otherwise specified by the Engineer. All materials removed will become the property of the Contractor.

Basis of Payment. Excavation protection for structures will be paid for at the contract unit price each, for UNDERWATER STRUCTURE EXCAVATION PROTECTION at the locations specified.

FABRIC REINFORCED ELASTOMERIC MAT

Effective: July 14,2000

Revised: September 12, 2003

Description. This work shall consist of furnishing and installing the fabric reinforced elastomeric mat as shown on the plans and as directed by the Engineer.

Materials. The elastomeric material requirements for the reinforced mat shall be according to the following:

The Elastomer Compound for the mat shall be according to AASHTO M 251 for Polychloroprene "50 duro", except the tensile strength shall be 10.3 MPa (1500 psi) minimum or it shall be (EPDM) ethylene propylene diene monomer according to Article 1052.02 of the Standard Specifications.

The composite of the fabric and elastomer shall have a minimum tensile strength of 122.6 x 122.6 N/mm (700 x 700 lb/in) according to ASTM D 378.

The minimum elongation at ultimate tensile strength shall be 30 percent according to ASTM D 412.

The minimum thickness of the reinforced mat shall be 3 mm (1/8 in.).

Threaded studs, washers and nuts shall be according to ASHTO M 164. Flattening plates shall be according to AASHTO M 270M, Grade 250 (M 270,Grade 36).

Method of Measurement. The fabric reinforced elastomeric mat and all hardware necessary to install the mat will not be measured for payment but shall be included in the concrete pay item involved.

BITUMINOUS CONCRETE SURFACE COURSE (BDE)

Effective: April 1, 2001

Revised: April 1, 2003

Replace the fourth paragraph of Article 406.23(b) of the Standard Specifications with the following:

“Mixture for cracks, joints, flangeways, leveling binder (machine method), leveling binder (hand method) and binder course in excess of 103 percent of the quantity specified by the Engineer will not be measured for payment.

Surface course mixture in excess of 103 percent of adjusted plan quantity will not be measured for payment. The adjusted plan quantity for surface course mixtures will be calculated as follows:

Adjusted Plan Quantity = C x quantity shown on the plans or as specified by the Engineer.

where C = metric: $C = \frac{G_{mb} \times 24.99}{U}$ English: $C = \frac{G_{mb} \times 46.8}{U}$

and where:

G_{mb} = average bulk specific gravity from approved mix design.

U = Unit weight of surface course shown on the plans in kg/sq m/25 mm (lb/sq yd/in.), used to estimate plan quantity.

24.99 = metric constant.

46.8 = English constant.

If project circumstances warrant a new surface course mix design, the above equations shall be used to calculate the adjusted plan quantity for each mix design using its respective average bulk specific gravity.”

80050

BITUMINOUS EQUIPMENT, SPREADING AND FINISHING MACHINE (BDE)

Effective: January 1, 2005

Revise the fourth paragraph of Article 1102.03 of the Standard Specifications to read:

“The paver shall be equipped with a receiving hopper having sufficient capacity for a uniform spreading operation. The hopper shall be equipped with a distribution system to uniformly place a non-segregated mixture in front of the screed. The distribution system shall have chain curtains, deflector plates, and/or other devices designed and built by the paver manufacturer to prevent segregation during distribution of the mixture from the hopper to the paver screed. The Contractor shall submit a written certification that the devices recommended by the paver manufacturer to prevent segregation have been installed and are operational. Prior to paving, the Contractor, in the presence of the Engineer, shall visually inspect paver parts specifically identified by the manufacturer for excessive wear and the need for replacement. The Contractor shall supply a completed check list to the Engineer noting the condition of the parts. Worn parts shall be replaced. The Engineer may require an additional inspection prior to the placement of a surface course or at other times throughout the work.”

80142

BRIDGE DECK CONSTRUCTION (BDE)

Effective: April 1, 2002

Revised: April 1, 2004

Add the following to Article 503.03 of the Standard Specifications:

“(h). Fogging Equipment.....1103.17(k)”

Add the following after the first sentence of the second paragraph to Article 503.07 of the Standard Specifications:

“When placing Class BD concrete, the discharge end of the pump shall have attached an “S” shaped flexible or rigid conduit, a 90 degree elbow with a minimum of 3 m (10 ft) of flexible conduit placed parallel to the deck, or a similar configuration approved by the Engineer.”

Add the following after the second sentence of the ninth paragraph of Article 503.07 of the Standard Specifications:

“When consolidating concrete in bridge decks, the vibrator shall be vertically inserted into the concrete for 3 - 5 seconds, or for a period of time determined by the Engineer.”

Add the following after the first paragraph of Article 503.17 of the Standard Specifications:

“For the bridge deck pour, fogging equipment shall be in operation unless the evaporation rate is less than 0.5 kg/sq m/hour (0.1 lb/sq ft/hour) and the Engineer gives permission to turn off the equipment. The evaporation rate shall be determined according to the figure in the Portland Cement Association’s publication, “Design and Control of Concrete Mixtures” (refer to the section on plastic shrinkage cracking). The Contractor shall provide temperature, relative humidity, and wind speed measuring equipment.

The fogging equipment shall be adjusted to adequately cover the entire width of the pour.

If there is a delay of more than ten minutes during bridge deck placement, wet burlap shall be used to protect the concrete until operations resume.

Concrete placement operations shall be coordinated to limit the distance between the point of concrete placement and concrete covered with cotton mats for curing. The distance shall not exceed 10.5 m (35 ft). For bridge deck widths greater than 15 m (50 ft), the distance shall not exceed 7.5 m (25 ft).”

Add the following to the end of the first paragraph of Article 503.17(b) of the Standard Specifications to read:

“The concrete in these areas shall be struck off during the deck pour and excess material from the finishing machine shall not be incorporated.”

In the Coarse Aggregate Gradation table of Article 1004.01(c) of the Standard Specifications revise the percent passing the 12.5 mm (1/2 in.) sieve for gradation CA 7 to “45±15^{4/ 9/”}.

In the Coarse Aggregate Gradation table of Article 1004.01(c) of the Standard Specifications revise the percent passing the 12.5 mm (1/2 in.) sieve for gradation CA 11 to “45±15^{6/ 9/”}.

Add the following to the Coarse Aggregate Gradation table of the Standard Specifications:

“9/ When Class BD concrete is to be pumped, the coarse aggregate gradation shall have a minimum of 45 percent passing the 12.5 mm (1/2 in.) sieve. The Contractor may combine two or more coarse aggregate sizes, consisting of CA-7, CA-11, CA-13, CA-14, and CA-16, provided a CA-7 or CA-11 is included in the blend.”

Revise Article 1020.05(d) of the Standard Specifications to read:

“(d) Class BD Concrete. The maximum mortar factor shall be 0.86.”

Add the following to Article 1103.17 of the Standard Specifications:

“(k) Fogging Equipment. Fogging equipment shall consist of a mechanically operated, pressurized system using a triple headed nozzle or an equivalent nozzle. The fogging nozzle shall be capable of producing a fine fog mist that will increase the relative humidity of the air just above the fresh concrete surface without accumulating any water on the concrete. The fogging equipment shall be mounted behind the roller and pan of finishing machine or on a separate foot bridge. Controls shall be designed to vary the volume of water flow, be easily accessible and immediately shut off the water when in the off position. Hand held fogging equipment will not be allowed.”

80066

CONCRETE ADMIXTURES (BDE)

Effective: January 1, 2003

Revised: July 1, 2004

Revise Article 1020.05(b) of the Standard Specifications to read:

“(b) Admixtures. Except as specified, the use of admixtures to increase the workability or to accelerate the hardening of the concrete will be permitted only when approved in writing by the Engineer. The Department will maintain an Approved List of Concrete Admixtures. When the Department permits the use of a calcium chloride accelerator, it shall be according to Article 442.02, Note 5.

When the atmosphere or concrete temperature is 18 °C (65 °F) or higher, a retarding admixture meeting the requirements of Article 1021.03 shall be used in the Class BD Concrete and portland cement concrete bridge deck overlays. The amount of retarding admixture to be used will be determined by the Engineer. The proportions of the ingredients of the concrete shall be the same as without the retarding admixture except that the amount of mixing water shall be reduced, as may be necessary, in order to maintain the consistency of the concrete as required. In addition, a high range water-reducing admixture shall be used in Class BD Concrete. The amount of high range water-reducing admixture will be determined by the Engineer. At the option of the Contractor, a water-reducing admixture may be used. Type I cement shall be used.

For Class PC and PS Concrete, a retarding admixture may be added to the concrete mixture when the concrete temperature is 18 °C (65 °F) or higher. Other admixtures may be used when approved by the Engineer, or if specified by the contract. If an accelerating admixture is permitted by the Engineer, it shall be the non-chloride type.

At the Contractor's option, admixtures in addition to an air-entraining admixture may be used for Class PP-1 concrete. The accelerator shall be the non-chloride type. If a water-reducing or retarding admixture is used, the cement factor may be reduced a maximum 18 kg/cu m (0.30 hundredweight/cu yd). If a high range water-reducing admixture is used, the cement factor may be reduced a maximum 36 kg/cu m (0.60 hundredweight/cu yd). Cement factor reductions shall not be cumulative when using multiple admixtures. An accelerator shall always be added prior to a high range water-reducing admixture, if both are used.

If Class C fly ash or ground granulated blast-furnace slag is used in Class PP-1 concrete, a water-reducing or high range water-reducing admixture shall be used. However, the cement factor shall not be reduced if a water-reducing, retarding, or high range water-reducing admixture is used. In addition, an accelerator shall not be used.

For Class PP-2 or PP-3 concrete, a non-chloride accelerator followed by a high range water-reducing admixture shall be used, in addition to the air-entraining admixture. For Class PP-3 concrete, the non-chloride accelerator shall be calcium nitrite.

For Class PP-2 or PP-3 concrete, the Contractor has the option to use a water-reducing admixture. A retarding admixture shall not be used unless approved by the Engineer. A water-reducing, retarding, or high range water-reducing admixture shall not be used to reduce the cement factor.

When the air temperature is less than 13 °C (55 °F) for Class PP-1 or PP-2 concrete, the non-chloride accelerator shall be calcium nitrite.

For Class PP-4 concrete, a high range water-reducing admixture shall be used in addition to the air-entraining admixture. The Contractor has the option to use a water-reducing admixture. An accelerator shall not be used. For stationary or truck mixed concrete, a retarding admixture shall be used to allow for haul time. The Contractor has the option to use a mobile portland cement concrete plant according to Article 1103.04, but a retarding admixture shall not be used unless approved by the Engineer. A water-reducing, retarding, or high range water-reducing admixture shall not be used to reduce the cement factor.

If the Department specifies a calcium chloride accelerator for Class PP-1 concrete, the maximum chloride dosage shall be 1.0 L (1.0 quart) of solution per 45 kg (100 lb) of cement. The dosage may be increased to a maximum 2.0 L (2.0 quarts) per 45 kg (100 lb) of cement if approved by the Engineer. If the Department specifies a calcium chloride accelerator for Class PP-2 concrete, the maximum chloride dosage shall be 1.3 L (1.3 quarts) of solution per 45 kg (100 lb) of cement. The dosage may be increased to a maximum 2.6 L (2.6 quarts) per 45 kg (100 lb) of cement if approved by the Engineer.

For Class PV, MS, SI, RR, SC and SH concrete, at the option of the Contractor, or when specified by the Engineer, a water-reducing admixture or a retarding admixture may be used. The amount of water-reducing admixture or retarding admixture permitted will be determined by the Engineer. The air-entraining admixture and other admixtures shall be added to the concrete separately, and shall be permitted to intermingle only after they have separately entered the concrete batch. The sequence, method and equipment for adding the admixtures shall be approved by the Engineer. The water-reducing admixture shall not delay the initial set of the concrete by more than one hour. Type I cement shall be used.

When a water-reducing admixture is added, a cement factor reduction of up to 18 kg/cu m (0.30 hundredweight/cu yd), from the concrete designed for a specific slump without the admixture, will be permitted for Class PV, MS, SI, RR, SC and SH concrete. When an approved high range water-reducing admixture is used, a cement factor reduction of up to 36 kg/cu m (0.60 hundredweight/cu yd), from a specific water cement/ratio without the admixture, will be permitted based on a 14 percent minimum water reduction. This is applicable to Class PV, MS, SI, RR, SC and SH concrete. A cement factor below 320 kg/cu m (5.35 hundredweight/cu yd) will not be permitted for Class PV, MS, SI, RR, SC and SH concrete. A cement factor reduction will not be allowed for concrete placed underwater. Cement factor reductions shall not be cumulative when using multiple admixtures.

For use of admixtures to control concrete temperature, refer to Articles 1020.14(a) and 1020.14(b).

The maximum slumps given in Table 1 may be increased to 175 mm (7 in.) when a high range water-reducing admixture is used for all classes of concrete except Class PV and PP.”

Revise Section 1021 of the Standard Specifications to read:

“SECTION 1021. CONCRETE ADMIXTURES”

1021.01 General. Admixtures shall be furnished in liquid form ready for use. The admixtures may be delivered in the manufacturer's original containers, bulk tank trucks or such containers or tanks as are acceptable to the Engineer. Delivery shall be accompanied by a ticket which clearly identifies the manufacturer and trade name of the material. Containers shall be readily identifiable to the satisfaction of the Engineer as to manufacturer and trade name of the material they contain.

Prior to inclusion of a product on the Department's Approved List of Concrete Admixtures, the manufacturer shall submit a report prepared by an independent laboratory accredited by the AASHTO Accreditation Program. The report shall show the results of physical tests conducted no more than five years prior to the time of submittal, according to applicable specifications.

Tests shall be conducted using materials and methods specified on a "test" concrete and a "reference" concrete, together with a certification that no changes have been made in the formulation of the material since the performance of the tests. Per the manufacturer's option, the cement content for all required tests shall either be according to applicable specifications or 335 kg/cu m (5.65 cwt/cu yd). Compressive strength test results for six months and one year will not be required.

In addition to the report, the manufacturer shall submit AASHTO T 197 water content and set time test results on the standard cement used by the Department. The test and reference concrete mixture shall contain a cement content of 335 kg/cu m (5.65 cwt/cu yd). The manufacturer may select their lab or an independent lab to perform this testing. The laboratory is not required to be accredited by the AASHTO Accreditation Program.

Prior to the approval of an admixture, the Engineer may conduct all or part of the applicable tests on a sample that is representative of the material to be furnished. The test and reference concrete mixtures tested by the Engineer will contain a cement content of 335 kg/cu m (5.65 cwt/cu yd). For freeze-thaw testing, the Department will perform the test according to Illinois Modified AASHTO T 161, Procedure B.

The manufacturer shall include in the submittal the following information according to ASTM C 494; the average and manufacturing range of specific gravity, the average and manufacturing range of solids in the solution, and the average and manufacturing range of pH. The submittal shall also include an infrared spectrophotometer trace no more than five years old.

When test results are more than seven years old, the manufacturer shall re-submit the infrared spectrophotometer trace and the report prepared by an independent laboratory accredited by the AASHTO Accreditation Program.

All admixtures, except chloride-based accelerators, shall contain no more than 0.3 percent chloride by mass (weight).

1021.02 Air-Entraining Admixtures. Air-entraining admixtures shall conform to the requirements of AASHTO M 154.

If the manufacturer certifies that the air-entraining admixture is an aqueous solution of Vinsol resin that has been neutralized with sodium hydroxide (caustic soda), testing for compliance with the requirements may be waived by the Engineer. In the certification, the manufacturer shall show complete information with respect to the formulation of the solution, including the number of parts of Vinsol resin to each part of sodium hydroxide. Before the approval of its use is granted, the Engineer will test the solution for its air-entraining quality in comparison with a solution prepared and kept for that purpose.

1021.03 Retarding and Water-Reducing Admixtures. The admixture shall comply with the following requirements:

- (a) The retarding admixture shall comply with the requirements of AASHTO M 194, Type B (retarding) or Type D (water-reducing and retarding).
- (b) The water-reducing admixture shall comply with the requirements of AASHTO M 194, Type A.
- (c) The high range water-reducing admixture shall comply with the requirements of AASHTO M 194, Type F (high range water-reducing) or Type G (high range water-reducing and retarding).

When a Type F or Type G high range water-reducing admixture is used, water-cement ratios shall be a minimum of 0.32.

Type F or Type G admixtures may be used, subject to the following restrictions:

For Class MS, SI, RR, SC and SH concrete, the water-cement ratio shall be a maximum of 0.44.

The Type F or Type G admixture shall be added at the jobsite unless otherwise directed by the Engineer. The initial slump shall be a minimum of 40 mm (1 1/2 in.) prior to addition of the Type F or Type G admixture, except as approved by the Engineer.

When a Type F or Type G admixture is used, retempering with water or with a Type G admixture will not be allowed. An additional dosage of a Type F admixture, not to exceed 40 percent of the original dosage, may be used to retemper concrete once, provided set time is not unduly affected. A second retempering with a Type F admixture may be used for all classes of concrete except Class PP and SC, provided that the dosage does not exceed the dosage used for the first retempering, and provided that the set time is not unduly affected. No further retempering will be allowed.

Air tests shall be performed after the addition of the Type F or Type G admixture.

1021.04 Set Accelerating Admixtures. The admixture shall comply with the requirements of AASHTO M 194, Type C (accelerating) or Type E (water reducing and accelerating)”
80094

CORRUGATED METAL PIPE CULVERTS (BDE)

Effective: August 1, 2003

Revised: July 1, 2004

Revise the fourth paragraph of Article 542.04(d) of the Standard Specifications to read:

“When corrugated steel or aluminum alloy culvert pipe (including bituminous coated steel or aluminum and pre-coated steel) is used, the pipe shall be placed such that the longitudinal lap is placed at the sides and separate sections of pipe shall be joined with a hugger-type band. When the pipes are fabricated with a smooth sleeve-type coupler, the gasket shall meet the requirements of Article 1006.01.”

Add the following paragraph after the first paragraph of Article 1006.01 of the Standard Specifications:

“Round pipes 1200 mm (48 in.) in diameter and smaller may be fabricated with a smooth sleeve-type coupler. Gasket material on the smooth sleeve-type coupler shall be polyisoprene or equal with a durometer hardness of 45±5 (ASTM D 2240, Shore A). Pipe used with smooth sleeve-type couplers shall contain a homing mark that indicates when the joint is tight. The homing mark shall consist of a painted stripe around the circumference of the male end of the pipe.”

Delete the last sentence of the first paragraph of Article 1006.01(a) of the Standard Specifications.

Add the following paragraph after the first paragraph of Article 1006.03 of the Standard Specifications:

“Round pipes 1200 mm (48 in.) in diameter and smaller may be fabricated with a smooth sleeve-type coupler. Gasket material on the smooth sleeve-type coupler shall be polyisoprene or equal with a durometer hardness of 45±5 (ASTM D 2240, Shore A). Pipe used with smooth sleeve-type couplers shall contain a homing mark that indicates when the joint is tight. The homing mark shall consist of a painted stripe around the circumference of the male end of the pipe.”

80102

CURING AND PROTECTION OF CONCRETE CONSTRUCTION (BDE)

Effective: January 1, 2004

Revise the second and third sentences of the eleventh paragraph of Article 503.06 of the Standard Specifications to read:

“Forms on substructure units shall remain in place at least 24 hours. The method of form removal shall not result in damage to the concrete.”

Delete the twentieth paragraph of Article 503.22 of the Standard Specifications.

Revise the “Unit Price Adjustments” table of Article 503.22 of the Standard Specifications to read:

“UNIT PRICE ADJUSTMENTS	
Type of Construction	Percent Adjustment in Unit Price
For concrete in substructures, culverts (having a waterway opening of more than 1 sq m (10 sq ft)), pump houses, and retaining walls (except concrete pilings, footings and foundation seals):	
When protected by:	
Protection Method II	115%
Protection Method I	110%
For concrete in superstructures:	
When protected by:	
Protection Method II	123%
Protection Method I	115%
For concrete in footings:	
When protected by:	
Protection Method I, II or III	107%
For concrete in slope walls:	
When protected by:	
Protection Method I	107%”

Delete the fourth paragraph of Article 504.05(a) of the Standard Specifications.

Revise the second and third sentences of the fifth paragraph of Article 504.05(a) of the Standard Specifications to read:

“All test specimens shall be cured with the units according to Article 1020.13.”

Revise the first paragraph of Article 504.06(c)(6) of the Standard Specifications to read:

“Curing and Low Air Temperature Protection. The curing and protection for precast, prestressed concrete members shall be according to Article 1020.13 and this Article.”

Revise the first sentence of the second paragraph of Article 504.06(c)(6) of the Standard Specifications to read:

“For curing, air vents shall be in place, and shall be so arranged that no water can enter the void tubes during the curing of the members.”

Revise the first sentence of the third paragraph of Article 504.06(c)(6) of the Standard Specifications to read:

“As soon as each member is finished, the concrete shall be covered with curing material according to Article 1020.13.”

Revise the eighth paragraph of Article 504.06(c)(6) of the Standard Specifications to read:

“The prestressing force shall not be transferred to any member before the concrete has attained the compressive strength of 28,000 kPa (4000 psi) or other higher compressive release strength specified on the plans, as determined from tests of 150 mm (6 in.) by 300 mm (12 in.) cylinders cured with the member according to Article 1020.13. Members shall not be shipped until 28-day strengths have been attained and members have a yard age of at least 4 days.”

Delete the third paragraph of Article 512.03(a) of the Standard Specifications.

Delete the last sentence of the second paragraph of Article 512.04(d) of the Standard Specifications.

Revise the “Index Table of Curing and Protection of Concrete Construction” table of Article 1020.13 of the Standard Specifications to read:

“INDEX TABLE OF CURING AND PROTECTION OF CONCRETE CONSTRUCTION			
TYPE OF CONSTRUCTION	CURING METHODS	CURING PERIOD DAYS	LOW AIR TEMPERATURE PROTECTION METHODS
Cast-in-Place Concrete: ^{11/}			
Pavement			
Shoulder	1020.13(a)(1)(2)(3)(4)(5) ^{3/ 5/}	3	1020.13(c)
Base Course			
Base Course Widening	1020.13(a)(1)(2)(3)(4)(5) ^{1/ 2/}	3	1020.13(c)
Driveway			
Median			
Curb			
Gutter	1020.13(a)(1)(2)(3)(4)(5) ^{4/ 5/}	3	1020.13(c) ^{16/}
Curb and Gutter			
Sidewalk			
Slope Wall			
Paved Ditch			
Catch Basin			
Manhole	1020.13(a)(1)(2)(3)(4)(5) ^{4/}	3	1020.13(c)
Inlet			
Valve Vault			
Pavement Patching	1020.13(a)(1)(2)(3)(4)(5) ^{2/}	3 ^{12/}	1020.13(c)
Pavement Replacement	1020.13(a)(1)(2)(3)(4)(5) ^{1/ 2/}	3	442.06(h) and 1020.13(c)
Railroad Crossing	1020.13(a)(3)(5)	1	1020.13(c)
Piles	1020.13(a)(3)(5)	7	1020.13(e)(1)(2)(3)
Footings			
Foundation Seals	1020.13(a)(1)(2)(3)(4)(5) ^{4/6/}	7	1020.13(e)(1)(2)(3)
Substructure	1020.13(a)(1)(2)(3)(4)(5) ^{1/7/}	7	1020.13(e)(1)(2)(3)
Superstructure (except deck)	1020.13(a)(1)(2)(3)(5) ^{8/}	7	1020.13(e)(1)(2)
Deck	1020.13(a)(5)	7	1020.13(e)(1)(2) ^{17/}
Retaining Walls	1020.13(a)(1)(2)(3)(4)(5) ^{1/7/}	7	1020.13(e)(1)(2)
Pump Houses	1020.13(a)(1)(2)(3)(4)(5) ^{1/}	7	1020.13(e)(1)(2)
Culverts	1020.13(a)(1)(2)(3)(4)(5) ^{4/6/}	7	1020.13(e)(1)(2) ^{18/}
Other Incidental Concrete	1020.13(a)(1)(2)(3)(5)	3	1020.13(c)
Precast Concrete: ^{11/}			
Bridge Beams			
Piles			
Bridge Slabs	1020.13(a)(3)(5) ^{9/10/}	As required.	^{13/} 504.06(c)(6), 1020.13(e)(2) ^{19/}
Nelson Type Structural Member			
All Other Precast Items	1020.13(a)(3)(4)(5) ^{2/9/10/}	As required.	^{14/} 504.06(c)(6), 1020.13(e)(2) ^{19/}
Precast, Prestressed Concrete: ^{11/}			
All Items	1020.13(a)(3)(5) ^{9/10/}	Until strand	504.06(c)(6), 1020.13(e)(2) ^{19/} tensioning is released. ^{15/}

Notes-General:

- 1/ Type I, membrane curing only
- 2/ Type II, membrane curing only
- 3/ Type III, membrane curing only
- 4/ Type I, II and III membrane curing
- 5/ Membrane curing will not be permitted between November 1 and April 15.
- 6/ The use of water to inundate footings, foundation seals or the bottom slab of culverts is permissible when approved by the Engineer, provided the water temperature can be maintained at 7 °C (45 °F) or higher.
- 7/ Asphalt Emulsion for Waterproofing may be used in lieu of other curing methods when specified and permitted according to Article 503.18.
- 8/ On non-traffic surfaces which receive protective coat according to Article 503.19, a linseed oil emulsion curing compound may be used as a substitute for protective coat and other curing methods. The linseed emulsion curing compound will be permitted between April 16 and October 31 of the same year, provided it is applied with a mechanical sprayer according to Article 1101.09 (b), and meets the material requirements of Article 1022.07.
- 9/ Steam curing (heat and moisture) is acceptable and shall be accomplished by the method specified in Article 504.06(c)(6).
- 10/ A moist room according to AASHTO M 201 is acceptable for curing.
- 11/ If curing is required and interrupted because of form removal for cast-in-place concrete items, precast concrete products, or precast prestressed concrete products, the curing shall be resumed within two hours from the start of the form removal.
- 12/ Curing maintained only until opening strength is attained, with a maximum curing period of three days.
- 13/ The curing period shall end when the concrete has attained the mix design strength. The producer has the option to discontinue curing when the concrete has attained 80 percent of the mix design strength or after seven days. All strength test specimens shall remain with the units and shall be subjected to the same curing method and environmental condition as the units, until the time of testing.
- 14/ The producer shall determine the curing period or may elect to not cure the product. All strength test specimens shall remain with the units and shall be subjected to the same curing method and environmental condition as the units, until the time of testing.
- 15/ The producer has the option to continue curing after strand release.
- 16/ When structural steel or structural concrete is in place above slope wall, Article 1020.13(c) shall not apply. The protection method shall be according to Article 1020.13(e)(1).
- 17/ When Article 1020.13(e)(2) is used to protect the deck, the housing may enclose only the bottom and sides. The top surface shall be protected according to Article 1020.13(e)(1).
- 18/ For culverts having a waterway opening of 1 sq m (10 sq ft) or less, the culverts may be protected according to Article 1020.13(e)(3).
- 19/ The seven day protection period in the first paragraph of Article 1020.13(e)(2) shall not apply. The protection period shall end when curing is finished. For the third paragraph of Article 1020.13(e)(2), the decrease in temperature shall be according to Article 504.06(c)(6)."

Add the following to Article 1020.13(a) of the Standard Specifications:

“(5) Wetted Cotton Mat Method. After the surface of concrete has been textured or finished, it shall be covered immediately with dry cotton mats. The cotton mats shall be placed in a manner which will not mar the concrete surface. A texture resulting from the cotton mat material is acceptable. The cotton mats shall then be wetted immediately and thoroughly soaked with a gentle spray of water. For bridge decks, a foot bridge shall be used to place and wet the cotton mats.

The cotton mats shall be maintained in a wetted condition until the concrete has hardened sufficiently to place soaker hoses without marring the concrete surface. The soaker hoses shall be placed on top of the cotton mats at a maximum 1.2 m (4 ft) spacing. The cotton mats shall be kept wet with a continuous supply of water for the remainder of the curing period. Other continuous wetting systems may be used if approved by the Engineer.

After placement of the soaker hoses, the cotton mats shall be covered with white polyethylene sheeting or burlap-polyethylene blankets.

For construction items other than bridge decks, soaker hoses or a continuous wetting system will not be required if the alternative method keeps the cotton mats wet. Periodic wetting of the cotton mats is acceptable.

For areas inaccessible to the cotton mats on bridge decks, curing shall be according to Article 1020.13(a)(3).”

Revise the first paragraph of Article 1020.13(c) of the Standard Specifications to read:

“Protection of Portland Cement Concrete, Other Than Structures, From Low Air Temperatures. When the official National Weather Service forecast for the construction area predicts a low of 0 °C (32 °F), or lower, or if the actual temperature drops to 0 °C (32 °F), or lower, concrete less than 72 hours old shall be provided at least the following protection.”

Delete Article 1020.13(d) and Articles 1020.13(d)(1),(2),(3),(4) of the Standard Specifications.

Revise the first five paragraphs of Article 1020.13(e) of the Standard Specifications to read:

“Protection of Portland Cement Concrete Structures From Low Air Temperatures. When the official National Weather Service Forecast for the construction area predicts a low below 7 °C (45 °F), or if the actual temperature drops below 7 °C (45 °F), concrete less than 72 hours old shall be provided protection. Concrete shall also be provided protection when placed during the winter period of December 1 through March 15. Concrete shall not be placed until the materials, facilities and equipment for protection are approved by the Engineer.

When directed by the Engineer, the Contractor may be required to place concrete during the winter period. If winter construction is specified, the Contractor shall proceed with the construction, including concrete, excavation, pile driving, steel erection and all appurtenant work required for the complete construction of the item, except at times when weather conditions make such operations impracticable.

Regardless of the precautions taken, the Contractor shall be responsible for protection of the concrete placed and any concrete damaged by cold temperatures shall be removed and replaced by the Contractor at his/her own expense.”

Add the following at the end of the third paragraph of Article 1020.13(e)(1) of the Standard Specifications:

“The Contractor shall provide means for checking the temperature of the surface of the concrete during the protection period.”

Revise the second sentence of the first paragraph of Article 1020.13(e)(2) of the Standard Specifications to read:

“The Contractor shall provide means for checking the temperature of the surface of the concrete or air temperature within the housing during the protection period.”

Delete the last sentence of the first paragraph of Article 1020.13(e)(3) of the Standard Specifications.

Add the following Article to Section 1022 of the Standard Specifications:

“1022.06 Cotton Mats. Cotton mats shall consist of a cotton fill material, minimum 400 g/sq m (11.8 oz/sq yd), covered with unsized cloth or burlap, minimum 200 g/sq m (5.9 oz/sq yd), and be tufted or stitched to maintain stability.

Cotton mats shall be in a condition satisfactory to the Engineer. Any tears or holes in the mats shall be repaired.

Add the following Article to Section 1022 of the Standard Specifications:

“1022.07 Linseed Oil Emulsion Curing Compound. Linseed oil emulsion curing compound shall be composed of a blend of boiled linseed oil and high viscosity, heavy bodied linseed oil emulsified in a water solution. The curing compound shall meet the requirements of a Type I, II, or III according to Article 1022.01, except the drying time requirement will be waived. The oil phase shall be 50 ± 4 percent by volume. The oil phase shall consist of 80 percent by mass (weight) boiled linseed oil and 20 percent by mass (weight) Z-8 viscosity linseed oil. The water phase shall be 50 ± 4 percent by volume.”

Revise Article 1020.14 of the Standard Specifications to read:

“1020.14 Temperature Control for Placement. Temperature control for concrete placement shall conform to the following requirements:

- (a) Temperature Control other than Structures. The temperature of concrete immediately before placing, shall be not less than 10 °C (50 °F) nor more than 32 °C (90 °F). Aggregates and/or water shall be heated or cooled as necessary to produce concrete within these temperature limits.

When the temperature of the plastic concrete reaches 30 °C (85 °F), an approved retarding admixture shall be used or the approved water reducing admixture in use shall have its dosage increased by 50 percent over the dosage recommended on the Department's Approved List of Concrete Admixtures for the temperature experienced. The amount of retarding admixture to be used will be determined by the Engineer. This requirement may be waived by the Engineer when fly ash compensated mixtures are used.

Plastic concrete temperatures up to 35 °C (96 °F), as placed, may be permitted provided job site conditions permit placement and finishing without excessive use of water on and/or overworking of the surface. The occurrence within 24 hours of unusual surface distress shall be cause to revert to a maximum 32 °C (90 °F) plastic concrete temperature.

Concrete shall not be placed when the air temperature is below 5 °C (40 °F) and falling or below 2 °C (35 °F), without permission of the Engineer. When placing of concrete is authorized during cold weather, the Engineer may require the water and/or the aggregates to be heated to not less than 20 °C (70 °F) nor more than 65 °C (150 °F). The aggregates may be heated by either steam or dry heat prior to being placed in the mixer. The apparatus used shall heat the mass uniformly and shall be so arranged as to preclude the possible occurrence of overheated areas which might damage the materials. No frozen aggregates shall be used in the concrete.

For pavement patching, refer to Article 442.06(e) for additional information on temperature control for placement.

- (b) Temperature Control for Structures. The temperature of concrete as placed in the forms shall be not less than 10 °C (50 °F) nor more than 32 °C (90 °F). Aggregates and/or water shall be heated or cooled as necessary to produce concrete within these temperature limits. When insulated forms are used, the temperature of the concrete mixture shall not exceed 25 °C (80 °F). If the Engineer determines that heat of hydration might cause excessive temperatures in the concrete, the concrete shall be placed at a temperature between 10 °C (50 °F) and 15 °C (60 °F), per the Engineer's instructions. When concrete is placed in contact with previously placed concrete, the temperature of the concrete may be increased as required to offset anticipated heat loss.

Concrete shall not be placed when the air temperature is below 7 °C (45 °F) and falling or below 4 °C (40 °F), without permission of the Engineer. When placing of concrete is authorized during cold weather, the Engineer may require the water and/or the aggregates to be heated to not less than 20 °C (70 °F) nor more than 65 °C (150 °F). The aggregates may be heated by either steam or dry heat prior to being placed in the mixer. The apparatus used shall heat the mass uniformly and shall be so arranged as to preclude the possible occurrence of overheated areas which might damage the materials. No frozen aggregates shall be used in the concrete.

When the temperature of the plastic concrete reaches 30 °C (85 °F), an approved retarding admixture shall be used or the approved water reducing admixture in use shall have its dosage increased by 50 percent over the dosage recommended on the Department's Approved List of Concrete Admixtures for the temperature experienced. The amount of retarding admixture to be used will be determined by the Engineer. This requirement may be waived by the Engineer when fly ash compensated mixtures are used.

(c) Temperature. The concrete temperature shall be determined according to ASTM C 1064.”

80114

DISADVANTAGED BUSINESS ENTERPRISE PARTICIPATION (BDE)

Effective: September 1, 2000

Revised: June 1, 2004

FEDERAL OBLIGATION. The Department of Transportation, as a recipient of federal financial assistance, is required to take all necessary and reasonable steps to ensure nondiscrimination in the award and administration of contracts. Consequently, the federal regulatory provisions of 49 CFR part 26 apply to this contract concerning the utilization of disadvantaged business enterprises. This Special Provision will also be used by the Department to satisfy the requirements of the Business Enterprise for Minorities, Females, and Persons with Disabilities Act, 30 ILCS 575. For the purposes of this Special Provision, a disadvantaged business enterprise (DBE) means a business certified by the Department in accordance with the requirements of 49 CFR part 26 and listed in the DBE Directory or most recent addendum.

CONTRACTOR ASSURANCE. The Contractor makes the following assurance and agrees to include the assurance in each subcontract that the Contractor signs with a subcontractor:

The contractor, subrecipient or subcontractor shall not discriminate on the basis of race, color, national origin, or sex in the performance of this contract. The contractor shall carry out applicable requirements of 49 CFR part 26 in the award and administration of federally-assisted contracts. Failure by the contractor to carry out these requirements is a material breach of this contract, which may result in the termination of this contract or such other remedy as the recipient deems appropriate.

OVERALL GOAL SET FOR THE DEPARTMENT. As a requirement of compliance with 49 CFR part 26, the Department has set an overall goal for DBE participation in its federally assisted contracts. That goal applies to all federal-aid funds the Department will expend in its federally assisted contracts for the subject reporting fiscal year. The Department is required to make a good faith effort to achieve the overall goal. The dollar amount paid to all approved DBE firms performing work called for in this contract is eligible to be credited toward fulfillment of the Department's overall goal.

CONTRACT GOAL TO BE ACHIEVED BY THE CONTRACTOR. This contract includes a specific DBE utilization goal established by the Department. The goal has been included because the Department has determined that the work of this contract has subcontracting opportunities that may be suitable for performance by DBE companies. This determination is based on an assessment of the type of work, the location of the work, and the availability of DBE companies to do a part of the work. The assessment indicates that, in the absence of unlawful discrimination, and in an arena of fair and open competition, DBE companies can be expected to perform 4.00% of the work. This percentage is set as the DBE participation goal for this contract. Consequently, in addition to the other award criteria established for this contract, the Department will award this contract to a bidder who makes a good faith effort to meet this goal of DBE participation in the performance of the work. A bidder makes a good faith effort for award consideration if either of the following is done in accordance with the procedures set forth in this Special Provision:

- (a) The bidder documents that firmly committed DBE participation has been obtained to meet the goal; or
- (b) The bidder documents that a good faith effort has been made to meet the goal, even though the effort did not succeed in obtaining enough DBE participation to meet the goal.

DBE LOCATOR REFERENCES. Bidders may consult the DBE Directory as a reference source for DBE companies certified by the Department. In addition, the Department maintains a letting and item specific DBE locator information system whereby DBE companies can register their interest in providing quotes on particular bid items advertised for letting. Information concerning DBE companies willing to quote work for particular contracts may be obtained by contacting the Department's Bureau of Small Business Enterprises at telephone number (217)785-4611, or by visiting the Department's web site at www.dot.state.il.us.

BIDDING PROCEDURES. Compliance with the bidding procedures of this Special Provision is required prior to the award of the contract and the failure of the as-read low bidder to comply will render the bid nonresponsive.

- (a) In order to assure the timely award of the contract, the as-read low bidder must submit a Disadvantaged Business Utilization Plan on Department form SBE 2026 within seven (7) working days after the date of letting. To meet the seven (7) day requirement, the bidder may send the Plan by certified mail or delivery service within the seven (7) working day period. If a question arises concerning the mailing date of a Plan, the mailing date will be established by the U.S. Postal Service postmark on the original certified mail receipt from the U.S. Postal Service or the receipt issued by a delivery service. It is the responsibility of the as-read low bidder to ensure that the postmark or receipt date is affixed within the seven (7) working days if the bidder intends to rely upon mailing or delivery to satisfy the submission day requirement. The Plan is to be submitted to the Department of Transportation, Bureau of Small Business Enterprises, Contract Compliance Section, 2300 South Dirksen Parkway, Room 319, Springfield, Illinois 62764 (Telefax: (217)785-1524). It is the responsibility of the bidder to obtain confirmation of telefax delivery. The Department will not accept a Utilization Plan if it does not meet the seven (7) day submittal requirement, and the bid will be declared nonresponsive. In the event the bid is declared nonresponsive due to a failure to submit a Plan or failure to comply with the bidding procedures set forth herein, the Department may elect to cause the forfeiture of the penal sum of the bidder's proposal guaranty, and may deny authorization to bid the project if re-advertised for bids. The Department reserves the right to invite any other bidder to submit a Utilization Plan at any time for award consideration or to extend the time for award.

- (b) The Utilization Plan shall indicate that the bidder either has obtained sufficient DBE participation commitments to meet the contract goal or has not obtained enough DBE participation commitments in spite of a good faith effort to meet the goal. The Utilization Plan shall further provide the name, telephone number and telefax number of a responsible official of the bidder designated for purposes of notification of plan approval or disapproval under the procedures of this Special Provision.
- (c) The Utilization Plan shall include a DBE Participation Commitment Statement, Department form SBE 2025, for each DBE proposed for the performance of work to achieve the contract goal. The signatures on these forms must be original signatures. All elements of information indicated on the said form shall be provided, including but not limited to the following:
- (1) The name and address of each DBE to be used;
 - (2) A description, including pay item numbers, of the commercially useful work to be done by each DBE;
 - (3) The price to be paid to each DBE for the identified work specifically stating the quantity, unit price and total subcontract price for the work to be completed by the DBE. If partial pay items are to be performed by the DBE, indicate the portion of each item, a unit price where appropriate and the subcontract price amount;
 - (4) A commitment statement signed by the bidder and each DBE evidencing availability and intent to perform commercially useful work on the project; and
 - (5) If the bidder is a joint venture comprised of DBE firms and non-DBE firms, the plan must also include a clear identification of the portion of the work to be performed by the DBE partner(s).
- (d) The contract will not be awarded until the Utilization Plan submitted by the bidder is approved. The Utilization Plan will be approved by the Department if the Plan commits sufficient commercially useful DBE work performance to meet the contract goal. The Utilization Plan will not be approved by the Department if the Plan does not commit sufficient DBE performance to meet the contract goal unless the bidder documents that it made a good faith effort to meet the goal. The good faith procedures of Section VIII of this special provision apply. If the Utilization Plan is not approved because it is deficient in a technical matter, unless waived by the Department, the bidder will be notified and will be allowed no less than a five (5) working day period in order to cure the deficiency.

CALCULATING DBE PARTICIPATION. The Utilization Plan values represent work anticipated to be performed and paid for upon satisfactory completion. The Department is only able to count toward the achievement of the overall goal and the contract goal the value of payments made for the work actually performed by DBE companies. In addition, a DBE must perform a commercially useful function on the contract to be counted. A commercially useful function is generally performed when the DBE is responsible for the work and is carrying out its responsibilities by actually performing, managing, and supervising the work involved. The Department and Contractor are governed by the provisions of 49 CFR part 26.55(c) on questions of commercially useful functions as it affects the work. Specific counting guidelines are provided in 49 CFR part 26.55, the provisions of which govern over the summary contained herein.

- (a) DBE as the Contractor: 100% goal credit for that portion of the work performed by the DBE's own forces, including the cost of materials and supplies. Work that a DBE subcontracts to a non-DBE firm does not count toward the DBE goals.
- (b) DBE as a joint venture Contractor: 100% goal credit for that portion of the total dollar value of the contract equal to the distinct, clearly defined portion of the work performed by the DBE's own forces.
- (c) DBE as a subcontractor: 100% goal credit for the work of the subcontract performed by the DBE's own forces, including the cost of materials and supplies, excluding the purchase of materials and supplies or the lease of equipment by the DBE subcontractor from the prime contractor or its affiliates. Work that a DBE subcontractor in turn subcontracts to a non-DBE firm does not count toward the DBE goal.
- (d) DBE as a trucker: 100% goal credit for trucking participation provided the DBE is responsible for the management and supervision of the entire trucking operation for which it is responsible. At least one truck owned, operated, licensed and insured by the DBE must be used on the contract. Credit will be given for the full value of all such DBE trucks operated using DBE employed drivers. Goal credit will be limited to the value of the reasonable fee or commission received by the DBE if trucks are leased from a non-DBE company.
- (e) DBE as a material supplier:
 - (1) 60% goal credit for the cost of the materials or supplies purchased from a DBE regular dealer.
 - (2) 100% goal credit for the cost of materials or supplies obtained from a DBE manufacturer.
 - (3) 100% credit for the value of reasonable fees and commissions for the procurement of materials and supplies if not a regular dealer or manufacturer.

GOOD FAITH EFFORT PROCEDURES. If the bidder cannot obtain sufficient DBE commitments to meet the contract goal, the bidder must document in the Utilization Plan the good faith efforts made in the attempt to meet the goal. This means that the bidder must show that all necessary and reasonable steps were taken to achieve the contract goal. Necessary and reasonable steps are those which could reasonably be expected to obtain sufficient DBE participation. The Department will consider the quality, quantity and intensity of the kinds of efforts that the bidder has made. Mere *pro forma* efforts are not good faith efforts; rather, the bidder is expected to have taken those efforts that would be reasonably expected of a bidder actively and aggressively trying to obtain DBE participation sufficient to meet the contract goal.

- (a) The following is a list of types of action that the Department will consider as part of the evaluation of the bidder's good faith efforts to obtain participation. These listed factors are not intended to be a mandatory checklist and are not intended to be exhaustive. Other factors or efforts brought to the attention of the Department may be relevant in appropriate cases, and will be considered by the Department.

- (1) Soliciting through all reasonable and available means (e.g. attendance at pre-bid meetings, advertising and/or written notices) the interest of all certified DBE companies that have the capability to perform the work of the contract. The bidder must solicit this interest within sufficient time to allow the DBE companies to respond to the solicitation. The bidder must determine with certainty if the DBE companies are interested by taking appropriate steps to follow up initial solicitations.
- (2) Selecting portions of the work to be performed by DBE companies in order to increase the likelihood that the DBE goals will be achieved. This includes, where appropriate, breaking out contract work items into economically feasible units to facilitate DBE participation, even when the prime contractor might otherwise prefer to perform these work items with its own forces.
- (3) Providing interested DBE companies with adequate information about the plans, specifications, and requirements of the contract in a timely manner to assist them in responding to a solicitation.
- (4) a. Negotiating in good faith with interested DBE companies. It is the bidder's responsibility to make a portion of the work available to DBE subcontractors and suppliers and to select those portions of the work or material needs consistent with the available DBE subcontractors and suppliers, so as to facilitate DBE participation. Evidence of such negotiation includes the names, addresses, and telephone numbers of DBE companies that were considered; a description of the information provided regarding the plans and specifications for the work selected for subcontracting; and evidence as to why additional agreements could not be reached for DBE companies to perform the work.

b. A bidder using good business judgment would consider a number of factors in negotiating with subcontractors, including DBE subcontractors, and would take a firm's price and capabilities as well as contract goals into consideration. However, the fact that there may be some additional costs involved in finding and using DBE companies is not in itself sufficient reason for a bidder's failure to meet the contract DBE goal, as long as such costs are reasonable. Also, the ability or desire of a prime contractor to perform the work of a contract with its own organization does not relieve the bidder of the responsibility to make good faith efforts. Prime contractors are not, however, required to accept higher quotes from DBE companies if the price difference is excessive or unreasonable.
- (5) Not rejecting DBE companies as being unqualified without sound reasons based on a thorough investigation of their capabilities. The contractor's standing within its industry, membership in specific groups, organizations, or associations and political or social affiliations (for example union vs. non-union employee status) are not legitimate causes for the rejection or non-solicitation of bids in the contractor's efforts to meet the project goal.
- (6) Making efforts to assist interested DBE companies in obtaining bonding, lines of credit, or insurance as required by the recipient or contractor.
- (7) Making efforts to assist interested DBE companies in obtaining necessary equipment, supplies, materials, or related assistance or services.

- (8) Effectively using the services of available minority/women community organizations; minority/women contractors' groups; local, state, and Federal minority/women business assistance offices; and other organizations as allowed on a case-by-case basis to provide assistance in the recruitment and placement of DBE companies.
- (b) If the Department determines that the Contractor has made a good faith effort to secure the work commitment of DBE companies to meet the contract goal, the Department will award the contract provided that it is otherwise eligible for award. If the Department determines that a good faith effort has not been made, the Department will notify the bidder of that preliminary determination by contacting the responsible company official designated in the Utilization Plan. The preliminary determination shall include a statement of reasons why good faith efforts have not been found, and may include additional good faith efforts that the bidder could take. The notification will designate a five (5) working day period during which the bidder shall take additional efforts. The bidder is not limited by a statement of additional efforts, but may take other action beyond any stated additional efforts in order to obtain additional DBE commitments. The bidder shall submit an amended Utilization Plan if additional DBE commitments to meet the contract goal are secured. If additional DBE commitments sufficient to meet the contract goal are not secured, the bidder shall report the final good faith efforts made in the time allotted. All additional efforts taken by the bidder will be considered as part of the bidder's good faith efforts. If the bidder is not able to meet the goal after taking additional efforts, the Department will make a pre-final determination of the good faith efforts of the bidder and will notify the designated responsible company official of the reasons for an adverse determination.
- (c) The bidder may request administrative reconsideration of a pre-final determination adverse to the bidder within the five (5) working days after the notification date of the determination by delivering the request to the Department of Transportation, Bureau of Small Business Enterprises, Contract Compliance Section, 2300 South Dirksen Parkway, Room 319, Springfield, Illinois 62764 (Telefax: (217)785-1524). Deposit of the request in the United States mail on or before the fifth business day shall not be deemed delivery. The pre-final determination shall become final if a request is not made and delivered. A request may provide additional written documentation and/or argument concerning the issue of whether an adequate good faith effort was made to meet the contract goal. In addition, the request shall be considered a consent by the bidder to extend the time for award. The request will be forwarded to the Department's Reconsideration Officer. The Reconsideration Officer will extend an opportunity to the bidder to meet in person in order to consider all issues of whether the bidder made a good faith effort to meet the goal. After the review by the Reconsideration Officer, the bidder will be sent a written decision within ten (10) working days after receipt of the request for reconsideration, explaining the basis for finding that the bidder did or did not meet the goal or make adequate good faith efforts to do so. A final decision by the Reconsideration Officer that a good faith effort was made shall approve the Utilization Plan submitted by the bidder and shall clear the contract for award. A final decision that a good faith effort was not made shall render the bid nonresponsive.

CONTRACT COMPLIANCE. Compliance with this Special Provision is an essential part of the contract. The Department is prohibited by federal regulations from crediting the participation of a DBE included in the Utilization Plan toward either the contract goal or the Department's overall goal until the amount to be applied toward the goals has been paid to the DBE. The following administrative procedures and remedies govern the compliance by the Contractor with the contractual obligations established by the Utilization Plan. After approval of the Plan and award of the contract, the Utilization Plan and individual DBE Participation Statements become part of the contract. If the contractor did not succeed in obtaining enough DBE participation to achieve the advertised contract goal, and the Utilization Plan was approved and contract awarded based upon a determination of good faith, the total dollar value of DBE work calculated in the approved Utilization Plan as a percentage of the awarded contract value shall become the amended contract goal.

- (a) No amendment to the Utilization Plan may be made without prior written approval from the Department's Bureau of Small Business Enterprises. All requests for amendment to the Utilization Plan shall be submitted to the Department of Transportation, Bureau of Small Business Enterprises, Contract Compliance Section, 2300 South Dirksen Parkway, Room 319, Springfield, Illinois 62764. Telephone number (217) 785-4611. Telefax number (217) 785-1524.
- (b) All work indicated for performance by an approved DBE shall be performed, managed and supervised by the DBE executing the Participation Statement. The Contractor shall not terminate for convenience a DBE listed in the Utilization Plan and then perform the work of the terminated DBE with its own forces, those of an affiliate or those of another subcontractor, whether DBE or not, without first obtaining the written consent of the Bureau of Small Business Enterprises to amend the Utilization Plan. If a DBE listed in the Utilization Plan is terminated for reasons other than convenience, or fails to complete its work on the contract for any reason, the Contractor shall make good faith efforts to find another DBE to substitute for the terminated DBE. The good faith efforts shall be directed at finding another DBE to perform at least the same amount of work under the contract as the DBE that was terminated, but only to the extent needed to meet the contract goal or the amended contract goal. The Contractor shall notify the Bureau of Small Business Enterprises of any termination for reasons other than convenience, and shall obtain approval for inclusion of the substitute DBE in the Utilization Plan. If good faith efforts following a termination of a DBE for cause are not successful, the Contractor shall contact the Bureau and provide a full accounting of the efforts undertaken to obtain substitute DBE participation. The Bureau will evaluate the good faith efforts in light of all circumstances surrounding the performance status of the contract, and determine whether the contract goal should be amended.
- (c) The Contractor shall maintain a record of payments for work performed to the DBE participants. The records shall be made available to the Department for inspection upon request. After the performance of the final item of work or delivery of material by a DBE and final payment therefor to the DBE by the Contractor, but not later than thirty (30) calendar days after payment has been made by the Department to the Contractor for such work or material, the Contractor shall submit a DBE Payment Report on Department form SBE 2115 to the District Engineer. If full and final payment has not been made to the DBE, the Report shall indicate whether a disagreement as to the payment required exists between the Contractor and the DBE or if the Contractor believes that the work has not been satisfactorily completed. If the Contractor does not have the full amount of work indicated in the Utilization Plan performed by the DBE companies indicated in the Plan, the Department will deduct from contract payments to the Contractor the amount of the goal not achieved as liquidated and ascertained damages.

- (d) The Department reserves the right to withhold payment to the Contractor to enforce the provisions of this Special Provision. Final payment shall not be made on the contract until such time as the Contractor submits sufficient documentation demonstrating achievement of the goal in accordance with this Special Provision or after liquidated damages have been determined and collected.

80029

EPOXY COATINGS FOR STEEL REINFORCEMENT (BDE)

Effective: April 1, 2003

Revise Article 1006.10(b)(2) of the Standard Specifications to read:

“(2) Epoxy Coated Reinforcement Bars. Epoxy coated reinforcement bars shall conform to the requirements of AASHTO M 284M (M 284), except:

- a. The maximum thickness of epoxy coating on spiral reinforcement, coated after fabrication, shall be 0.5 mm (20 mils).
- b. No more than eight of the holidays permitted shall be in any 300 mm (1 ft) of length for continuity of coating.

The epoxy coating applicator shall be certified under the Concrete Reinforcing Steel Institute’s (CRSI) Epoxy Plant Certification Program.

The epoxy coater shall provide access for the Engineer at any time during production or shipping. Random bars may be checked at the epoxy coater’s facility or the jobsite for coating uniformity, thickness and discontinuity; cracks on the bends; and other damaged areas. Upon request, the coater shall provide samples for testing by the Engineer.

Bars may be sheared or sawn to length after coating, provided end damage to coating does not extend more than 15 mm (1/2 in.) back and the cut end is patched before any visible oxidation appears. Flame cutting will not be permitted.”

Add the following paragraph after the first paragraph of Article 1006.11(b) of the Standard Specifications:

“The epoxy coating applicator shall be certified under the Concrete Reinforcing Steel Institute’s (CRSI) Epoxy Plant Certification Program.”

80100

EPOXY COATING ON REINFORCEMENT (BDE)

Effective: April 1, 1997

Revised: January 1, 2003

For work outside the limits of bridge approach pavement, all references to epoxy coating in the Highway Standards and Standard Specifications for reinforcement, tie bars and chair supports will not apply for pavement, shoulders, curb, gutter, combination curb and gutter and median.

31578

EROSION AND SEDIMENT CONTROL DEFICIENCY DEDUCTION (BDE)

Effective: August 1, 2001

Revised: November 1, 2001

When the Engineer is notified or determines an erosion and/or sediment control deficiency(s) exists, he/she will direct the Contractor in writing to correct the deficiency. The Contractor shall then correct the deficiency within 24 hours. The deficiency may be any lack of repair, maintenance, or implementation of erosion and/or sediment control devices included in the contract, or any failure to comply with the conditions of the National Pollutant Discharge Elimination System (NPDES) Storm Water Permit for Construction Site Activities.

If the Contractor fails to correct the deficiency(s) within 24 hours, a daily monetary deduction will be imposed for each calendar day or fraction thereof the deficiency exists. The time period will begin with the initial written notification to the Contractor and end with the Engineer's acceptance of the corrected work. The per calendar day deduction will be either \$1000.00 or 0.05 percent of the awarded contract value, whichever is greater.

If the Contractor fails to respond, the Engineer may correct the deficiencies and deduct the cost from monies due or which may become due the Contractor. This corrective action shall in no way relieve the Contractor of his/her contractual requirements or responsibilities.

80055

EXPANSION JOINTS (BDE)

Effective: August 1, 2003

Add the following paragraph after the second paragraph of Article 420.10(e) of the Standard Specifications:

"After the dowel bars are oiled, plastic expansion caps shall be secured to the bars maintaining a minimum expansion gap of 50 mm (2 in.) between the end of the bar and the end of the cap. The caps shall fit snugly on the bar and the closed end shall be watertight. For expansion joints formed using dowel bar basket assemblies, the caps shall be installed on the alternating free ends of the bars. For expansion joints formed using a construction header, the caps shall be installed on the exposed end of each bar once the header has been removed and the joint filler material has been installed."

80103

FLAGGER VESTS (BDE)

Effective: April 1, 2003

Revise the first sentence of Article 701.04(c)(1) of the Standard Specifications to read:

"The flagger shall be stationed to the satisfaction of the Engineer and be equipped with a fluorescent orange, fluorescent yellow/green or a combination of fluorescent orange and fluorescent yellow/green vest meeting the requirements of the American National Standards Institute specification ANSI/ISEA 107-1999 for Conspicuity Class 2 garments and approved flagger traffic control signs conforming to Standard 702001 and Article 702.05(e)."

Revise Article 701.04(c)(6) of the Standard Specifications to read:

“(6) Nighttime Flagging. The flagger station shall be lit by additional overhead lighting other than streetlights. The flagger shall be equipped with a fluorescent orange or fluorescent orange and fluorescent yellow/green garment meeting the requirements of the American National Standards Institute specification ANSI/ISEA 107-1999 for Conspicuity Class 2 garments.”

80101

FREEZE-THAW RATING (BDE)

Effective: November 1, 2002

Revise the first sentence of Article 1004.02(f) of the Standard Specifications to read:

“When coarse aggregate is used to produce portland cement concrete for base course, base course widening, pavement, driveway pavement, sidewalk, shoulders, curb, gutter, combination curb and gutter, median, paved ditch or their repair using concrete, the gradation permitted will be determined from the results of the Department’s Freeze-Thaw Test.”

| 80079

FURNISHED EXCAVATION (BDE)

| Effective: August 1, 2002

Revised: November 1, 2004

| Revise Article 204.01 of the Standard Specifications to read:

| **Description.** Borrow excavation and furnished excavation shall consist of excavating suitable materials obtained from locations approved by the Engineer and transporting the materials to various locations throughout the limits of the contract.”

Revise Article 204.07(b) of the Standard Specifications to read:

“(b) Measured Quantities. Furnished excavation will be computed for payment in cubic meters (cubic yards) as follows:

Furnished Excavation = Embankment - [Suitable Excavation x (1 - Shrinkage Factor)]

Where:

Embankment = the volume of fill in its final position computed by the method of average end areas and based upon the existing ground line as shown on the plans except as noted in (1) and (2) below;

Suitable Excavation = earth excavation, rock excavation, and other on-site excavation suitable for use in embankments as shown in the Earthwork Schedule on the plans;

Shrinkage Factor = 0.25 unless otherwise shown on the plans.

- (1) If the Contractor so requests, the Engineer will reestablish the existing ground line after the clearing and tree removal have been performed according to Section 201 and the top 150 mm (6 in.) of the existing ground surface has been disked and compacted to the satisfaction of the Engineer.
- (2) If settlement platforms are erected, the Engineer will reestablish the existing ground line after the embankment is complete as specified in Article 204.07(a)(2).

Furnished excavation placed in excess of that required for the execution of the contract will not be measured for payment.”

Add the following paragraph to the end of Article 204.07 of the Standard Specifications:

“The quantity for furnished excavation will not be recalculated when surplus, suitable materials are utilized in embankments according to Article 202.03.”

80072

HAND VIBRATOR (BDE)

Effective: November 1, 2003

Add the following paragraph to Article 1103.17(a) of the Standard Specifications:

“The vibrator shall have a non-metallic head for areas containing epoxy coated reinforcement. The head shall be coated by the manufacturer. The hardness of the non-metallic head shall be less than the epoxy coated reinforcement, resulting in no damage to the epoxy coating. Slip-on covers will not be allowed.”

80054

IMPACT ATTENUATORS, TEMPORARY (BDE)

Effective: November 1, 2003

Revised: April 1, 2004

Description. This work shall consist of furnishing, installing, maintaining, and removing temporary impact attenuators of the category and test level specified.

Materials. Materials shall meet the requirements of the impact attenuator manufacturer and the following:

Item	Article/Section
(a) Fine Aggregate (Note 1).....	1003.01
(b) Steel Posts, Structural Shapes, and Plates	1006.04
(c) Rail Elements, End Section Plates, and Splice Plates	1006.25
(d) Bolts, Nuts, Washers and Hardware	1006.25
(e) Hollow Structural Tubing	1006.27(b)
(f) Wood Posts and Wood Blockouts	1007.01, 1007.02, 1007.06
(g) Preservative Treatment.....	1007.12
(h) Rapid Set Mortar (Note 2)	

Note 1. Fine aggregate shall be FA-1 or FA-2, Class A quality. The sand shall be unbagged and shall have a maximum moisture content of five percent.

Note 2. Rapid set mortar shall be obtained from the Department's approved list of Packaged, Dry, Rapid Hardening Cementitious Materials for Concrete Repairs. For a rapid set mortar mixture, one part packaged rapid set cement shall be combined with two parts fine aggregate, by volume or a packaged rapid set mortar shall be used. Mixing of the rapid set mortar shall be according to the manufacturer's instructions.

CONSTRUCTION REQUIREMENTS

General. Impact Attenuators shall meet the testing criteria contained in National Cooperative Highway Research Program (NCHRP) Report 350 for the test level specified and shall be on the Department's approved list.

Installation. Regrading of slopes or approaches for the installation shall be as shown on the plans.

Attenuator bases, when required by the manufacturer, shall be constructed on a prepared subgrade according to the manufacturer's specifications. The surface of the base shall be slightly sloped or crowned to facilitate drainage.

Impact attenuators shall be installed according to the manufacturer's specifications and include all necessary transitions between the impact attenuator and the item to which it is attached.

When water filled attenuators are used between November 1 and April 15, they shall contain anti-freeze according to the manufacturer's recommendations.

Markings. Sand module impact attenuators shall be striped with alternating reflectorized Type AA or Type AP fluorescent orange and reflectorized white horizontal, circumferential stripes. There shall be at least two of each stripe on each module.

Other types of impact attenuators shall have a terminal marker applied to their nose and reflectors along their sides.

Maintenance. All maintenance of the impact attenuators shall be the responsibility of the Contractor until removal is directed by the Engineer.

Relocate. When relocation of temporary impact attenuators is specified, they shall be removed, relocated and reinstalled at the new location. The reinstallation requirements shall be the same as those for a new installation.

Removal. When the Engineer determines the temporary impact attenuators are no longer required, the installation shall be dismantled with all hardware becoming the property of the Contractor.

Surplus material shall be disposed of according to Article 202.03. Anti-freeze, when present, shall be disposed of/recycled according to local ordinances.

When impact attenuators have been anchored to the pavement, the anchor holes shall be repaired with rapid set mortar. Only enough water to permit placement and consolidation by rodding shall be used and the material shall be struck-off flush.

Method of Measurement. This work will be measured for payment as each, where each is defined as one complete installation.

Basis of Payment. This work will be paid for at the contract unit price per each for IMPACT ATTENUATORS, TEMPORARY (FULLY REDIRECTIVE, NARROW); IMPACT ATTENUATORS, TEMPORARY (FULLY REDIRECTIVE, WIDE); IMPACT ATTENUATORS, TEMPORARY (SEVERE USE, NARROW); IMPACT ATTENUATORS, TEMPORARY (SEVERE USE, WIDE); or IMPACT ATTENUATORS, TEMPORARY (NON-REDIRECTIVE) of the test level specified.

Relocation of the devices will be paid for at the contract unit price per each for IMPACT ATTENUATORS, RELOCATE (FULLY REDIRECTIVE); IMPACT ATTENUATORS, RELOCATE (SEVERE USE); or IMPACT ATTENUATORS, RELOCATE (NON-REDIRECTIVE); of the test level specified.

Regrading of slopes or approaches will be paid for according to Section 202 and/or Section 204 of the Standard Specifications.

80110

MULCHING SEEDED AREAS (BDE)

Effective: January 1, 2005

Delete Article 251.02(a) of the Standard Specifications.

Add the following to Article 251.02 of the Standard Specifications:

“(h) Compost 1081.05(b)”

Delete Article 251.03(b)(1) of the Standard Specifications.

Add the following to Article 251.03 of the Standard Specifications:

“(d) Method 4. This method shall consist of applying compost combined with a performance additive designed to bind/stabilize the compost. The compost/performance additive mixture shall be applied to the surface of the slope using a pneumatic blower at a depth of 50 mm (2 in.)”

Revise the first sentence of the first paragraph of Article 251.06(b) of the Standard Specifications to read:

“Mulch Methods 1, 2, 3, and 4 will be measured for payment in hectares (acres) of surface area mulched.”

Revise Article 251.07 of the Standard Specifications to read:

“**251.07 Basis of Payment.** This work will be paid for at the contract unit price per hectare (acre) for MULCH, METHOD 1; MULCH, METHOD 2; MULCH, METHOD 3; or MULCH, METHOD 4; and at the contract unit price per square meter (square yard) for EROSION CONTROL BLANKET or HEAVY DUTY EROSION CONTROL BLANKET.”

Add the following after the second paragraph of Article 1081.05(b) of the Standard Specifications:

“Chemical Compost Binder. Chemical compost binder shall be a commercially available product specifically recommended by the manufacturer for use as a compost stabilizer.

The compost binder shall be nonstaining and nontoxic to vegetation and the environment. It shall disperse evenly and rapidly and remain in suspension when agitated in water.

Prior to use of the compost binder, the Contractor shall submit a notarized certification by the manufacturer stating that it meets these requirements. Chemical compost binder shall be packaged, stored, and shipped according to the manufacturer’s recommendations with the net quantity plainly shown on each package or container.”

80138

PARTIAL PAYMENTS (BDE)

Effective: September 1, 2003

Revise Article 109.07 of the Standard Specifications to read:

“**109.07 Partial Payments.** Partial payments will be made as follows:

- (a) Progress Payments. At least once each month, the Engineer will make a written estimate of the amount of work performed in accordance with the contract, and the value thereof at the contract unit prices. The amount of the estimate approved as due for payment will be vouchered by the Department and presented to the State Comptroller for payment. No amount less than \$1000.00 will be approved for payment other than the final payment.

The failure to perform any requirement, obligation, or term of the contract by the Contractor shall be reason for withholding any progress payments until the Department determines that compliance has been achieved. Furthermore, progress payments may be reduced by liens filed pursuant to Section 23(c) of the Mechanics Lien Act, 770 ILCS 60/23(c).

- (b) Material Allowances. At the discretion of the Department, payment may be made for materials, prior to their use in the work, when satisfactory evidence is presented by the Contractor. Satisfactory evidence includes justification for the allowance (to expedite the work, meet project schedules, regional or national material shortages, etc.), documentation of material and transportation costs, and evidence that such material is properly stored on the project or at a secure location acceptable and accessible to the Department.

Material allowances will be considered only for nonperishable materials when the cost, including transportation, exceeds \$10,000 and such materials are not expected to be utilized within 60 days of the request for the allowance. For contracts valued under \$500,000, the minimum \$10,000 requirement may be met by combining the principal (material) product of no more than two contract items. An exception to this two item limitation may be considered for any contract regardless of value for items in which material (products) are similar except for type and/or size.

Material allowances shall not exceed the value of the contract items in which used and shall not include the cost of installation or related markups. Amounts paid by the Department for material allowances will be deducted from estimates due the Contractor as the material is used. Two-sided copies of the Contractor's cancelled checks for materials and transportation must be furnished to the Department within 60 days of payment of the allowances or the amounts will be reclaimed by the Department."

80116

PAYMENTS TO SUBCONTRACTORS (BDE)

Effective: June 1, 2000

Revised: September 1, 2003

Federal regulations found at 49 CFR §26.29 mandate the Department to establish a contract clause to require Contractors to pay subcontractors for satisfactory performance of their subcontracts no later than 30 days from the receipt of each payment made to the Contractor.

State law addresses the timing of payments to be made to subcontractors. Section 7 of the Prompt Payment Act, 30 ILCS 540/7, generally requires that when a Contractor receives any payment from the Department, the Contractor is required to make corresponding, proportional payments to each subcontractor performing work within 15 calendar days after receipt of the state payment. Section 7 of the State Prompt Payment Act further provides that interest in the amount of 2% per month, in addition to the payment due, shall be paid to any subcontractor by the Contractor if the payment required by the Act is withheld or delayed without reasonable cause. The Act also provides that the time for payment required and the calculation of any interest due applies to transactions between subcontractors and lower-tier subcontractors throughout the contracting chain.

This Special Provision establishes the required federal contract clause, and adopts the 15 calendar day requirement of the Act for purposes of compliance with the federal regulation regarding payments to subcontractors. This contract is subject to the following payment obligations.

As progress payments are made to the Contractor in accordance with Article 109.07 of the Standard Specifications for Road and Bridge Construction, the Contractor shall make a corresponding partial payment within 15 calendar days to each subcontractor in proportion to the work satisfactorily completed by each subcontractor. The proportionate amount of partial payment due to each subcontractor shall be determined by the quantities measured or otherwise determined as eligible for payment by the Department and included in the progress payment to the Contractor. Subcontractors shall be paid in full within 15 calendar days after the subcontractor's work has been satisfactorily completed. The Contractor shall hold no retainage from the subcontractors.

This Special Provision does not create any rights in favor of any subcontractor against the State of Illinois or authorize any cause of action against the State of Illinois on account of any payment, nonpayment, delayed payment or interest claimed by application of the State Prompt Payment Act. The Department will neither determine the reasonableness of any cause for delay of payment nor enforce any claim to payment, including interest. Moreover, the Department will not approve any delay or postponement of the 15 day requirement. State law creates remedies available to any subcontractor or material supplier, regardless of tier, who has not been paid for work properly performed or material furnished. These remedies are a lien against public funds set forth in Section 23(c) of the Mechanics Lien Act, 770 ILCS 60/23(c), and a recovery on the Contractor's payment bond in accordance with the Public Construction Bond Act, 30 ILCS 550.

80022

PERSONAL PROTECTIVE EQUIPMENT (BDE)

Effective: July 1, 2004

All personnel, excluding flaggers, working outside of a vehicle (car or truck) within 7.6 m (25 ft) of pavement open to traffic shall wear a fluorescent orange, fluorescent yellow/green or a combination of fluorescent orange and fluorescent yellow/green vest meeting the requirements of the American National Standards Institute specification ANSI/ISEA 107-1999 for Conspicuity Class 2 garments. Other types of garments may be substituted for the vest as long as the garments have manufacturers tags identifying them as meeting the ANSI Class 2 requirement.

80130

PLASTIC BLOCKOUTS FOR GUARDRAIL (BDE)

Effective: November 1, 2004

Add the following to Article 630.02 of the Standard Specifications:

“(h) Plastic Blockouts (Note 1.)

Note 1. Plastic blockouts, 150 mm (6 in.) deep, may be used in lieu of 150 mm (6 in.) deep wood block-outs for steel plate beam guardrail. The plastic blockouts shall be on the Department's approved list.”

80134

PORTLAND CEMENT (BDE)

Effective: January 1, 2005

Replace the first sentence of the second paragraph of Article 1001.01 of the Standard Specifications with the following:

“For portland cement according to ASTM C 150, the addition of up to 5.0 percent limestone by mass (weight) to the cement will not be permitted. Also, the total of all organic processing additions shall not exceed 1.0 percent by mass (weight) of the cement and the total of all inorganic processing additions shall not exceed 4.0 percent by mass (weight) of the cement.”

80139

PORTLAND CEMENT CONCRETE (BDE)

Effective: November 1, 2002

Add the following paragraph after the fourth paragraph of Article 1103.01(b) of the Standard Specifications:

“The truck mixer shall be approved before use according to the Bureau of Materials and Physical Research’s Policy Memorandum, “Approval of Concrete Plants and Delivery Trucks”.”

Add the following paragraph after the first paragraph of Article 1103.01(c) of the Standard Specifications:

“The truck agitator shall be approved before use according to the Bureau of Materials and Physical Research’s Policy Memorandum, “Approval of Concrete Plants and Delivery Trucks”.”

Add the following paragraph after the first paragraph of Article 1103.01(d) of the Standard Specifications:

“The nonagitator truck shall be approved before use according to the Bureau of Materials and Physical Research’s Policy Memorandum, “Approval of Concrete Plants and Delivery Trucks”.”

Revise the first sentence of the first paragraph of Article 1103.02 of the Standard Specifications to read:

“The plant shall be approved before production begins according to the Bureau of Materials and Physical Research’s Policy Memorandum, “Approval of Concrete Plants and Delivery Trucks”.”

80083

SLIPFORMED PARAPETS

Effective June 11, 2004

The slipforming option, as stated in Article 503.17(e)(1) of the Standard Specifications will not be allowed on this project.

PRECAST CONCRETE PRODUCTS (BDE)

Effective: July 1, 1999

Revised: November 1, 2004

Product Approval. Precast concrete products shall be produced according to the Department's current Policy Memorandum, "Quality Control/Quality Assurance Program for Precast Concrete Products". The Policy Memorandum applies to precast concrete products listed under the Products Key of the "Approved List of Certified Precast Concrete Producers".

Precast Concrete Box Culverts. Add the following sentence to the end of the fourth paragraph of Article 540.06:

"After installation, the interior and exterior joint gap between precast concrete box culvert sections shall not exceed 38 mm (1 1/2 in.)."

Portland Cement Replacement. For precast concrete products using Class PC concrete or other mixtures, portland cement replacement with fly ash or ground granulated blast-furnace (GGBF) slag shall be governed by the AASHTO or ASTM standard specification referenced in the Standard Specifications.

For all other precast concrete products using Class PC concrete or other mixtures, portland cement replacement with fly ash or GGBF slag shall be approved by the Engineer. Class F fly ash shall not exceed 15 percent by mass (weight) of the total portland cement and Class F fly ash. Class C fly ash shall not exceed 20 percent by mass (weight) of the total portland cement and Class C fly ash. GGBF slag shall not exceed 25 percent by mass (weight) of the total portland cement and GGBF slag.

Concrete mix designs, for precast concrete products, shall not consist of portland cement, fly ash and GGBF slag.

Ready-Mixed Concrete. Delete the last paragraph of Article 1020.11(a) of the Standard Specifications.

Shipping. When a precast concrete product has attained the specified strength, the earliest the product may be loaded, shipped, and used is on the fifth calendar day. The first calendar day shall be the date casting was completed.

Acceptance. Products which have been lot or piece inspected and approved by the Department prior to July 1, 1999, will be accepted for use on this contract.

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PRECAST, PRESTRESSED CONCRETE MEMBERS (BDE)

Effective: April 1, 2004

Revise the tables, "Maximum Allowable Dimensional Tolerances for Precast, Prestressed I-beams and Bulb T-beams" in Article 504.06(d) of the Standard Specifications to read:

"Maximum Allowable Dimensional Tolerances for Precast, Prestressed Concrete I-Beams and Bulb T-Beams	
	mm
Depth (flanges, web and fillets)	± 5
Depth (overall)	+ 5 to - 3
Width (flanges and fillets)	± 5
Width (web)	+ 5 to - 3
Length	± 3 per 3 m, max. + 15 to - 20
Square Ends (deviation from square)	± 5
Skew Ends (deviation from tangent offset)	± 5
Side Insert (spacing between centers of inserts and from the centers of inserts to the ends of the beams)	± 15
Bearing Plates (spacing between the centers of bearing plates)	± 15
Bearing Plate (spacing between the centers of bearing plates to the ends of the beams)	± 5
Bearing Plate or Bearing Area (variation from a true horizontal plane or from a plane surface when tested with a straightedge)	± 2
Stirrup Bars (extension above top of the beam)	0 to - 10
Stirrup Bars longitudinal spacing	
Within a distance equal to the depth of the member and measured from the end of the member	+ 25
In all other locations	+ 50
<p>The number of stirrups shall not be less than the required number in each length. Additional stirrups may be added when the maximum allowable tolerance is exceeded provided the minimum clearance between stirrups is not less than 50 mm.</p>	
<p>End Stirrup Bars - not more than 50 mm from the end of the beam</p>	
Horizontal Alignment (deviation from a straight line parallel to the centerline of the beam)	± 3 per 3 m, max. ± 30

Maximum Allowable Dimensional Tolerances For Precast, Prestressed Concrete I-Beams and Bulb T-Beams (English)	
	in.
Depth (flanges, web and fillets)	± 1/4
Depth (overall)	+ 1/4 to - 1/8
Width (flanges and fillets)	± 1/4
Width (web)	+ 1/4 to - 1/8
Length	± 1/8 per 10', max. + 1/2 to - 3/4
Square Ends (deviation from square)	± 1/4
Skew Ends (deviation from tangent offset)	± 1/4
Side Insert (spacing between centers of inserts and from the centers of inserts to the ends of the beams)	± 1/2
Bearing Plates (spacing between the centers of bearing plates)	± 1/2
Bearing Plate (spacing between the centers of bearing plates to the ends of the beams)	± 1/4
Bearing Plate or Bearing Area (variation from a true horizontal plane or from a plane surface when tested with a straightedge)	± 1/16
Stirrup Bars (extension above top of the beam)	0 to - 3/8
Stirrup Bars longitudinal spacing	
Within a distance equal to the depth of the member and measured from the end of the member	+ 1
In all other locations	+ 2
<p>The number of stirrups shall not be less than the required number in each length. Additional stirrups may be added when the maximum allowable tolerance is exceeded provided the minimum clearance between stirrups is not less than 2 in.</p>	
<p>End Stirrup Bars - not more than 2" from the end of the beam</p>	
Horizontal Alignment (deviation from a straight line parallel to the centerline of the beam)	± 1/8 per 10 ft, max. ± 1 1/4"

80120

PERFORMED RECYCLED RUBBER JOINT FILLER (BDE)

Effective: November 1, 2002

Revise Article 503.02(c) of the Standard Specifications to read:

“(c) Performed Expansion Joint Filler 1051”

Revise Article 637.02(d) of the Standard Specifications to read:

“(d) Performed Expansion Joint Filler 1051”

Add the following Article to Section 1051 of the Standard Specifications:

“1051.10 Performed Recycled Rubber Joint Filler. Performed recycled rubber joint filler shall consist of ground tire rubber, free of steel and fabric, combined with ground scrap or waste polyethylene. It shall not have a strong hydrocarbon or rancid odor and shall meet the physical property requirements of ASTM D 1752. Water absorption by volume shall not exceed 5.0 percent.”

| 80084

RAP FOR USE IN BITUMINOUS CONCRETE MIXTURES (BDE)

Effective: January 1, 2000

Revised: April 1, 2002

Revise Article 1004.07 to read:

“1004.07 RAP Materials. RAP is reclaimed asphalt pavement resulting from cold milling or crushing of an existing dense graded hot-mix asphalt pavement. RAP must originate from routes or airfields under federal, state or local agency jurisdiction. The Contractor shall supply documentation that the RAP meets these requirements.

(a) Stockpiles. The Contractor shall construct individual, sealed RAP stockpiles meeting one of the following definitions. No additional RAP will be allowed on top of the pile after the pile has been sealed.

(1) Homogeneous. Homogeneous RAP stockpiles shall consist of RAP from Class I/ Superpave, or equivalent mixtures only and represent the same aggregate quality, but shall be at least C quality or better, the same type of crushed aggregate (either crushed natural aggregate, ACBF slag, or steel slag), similar gradation and similar AC content. If approved by the Engineer, combined single pass surface/binder millings may be considered “homogenous”, with a quality rating dictated by the lowest coarse aggregate quality present in the mixture. Homogenous stockpiles shall meet the requirements of Article 1004.07(d). Homogeneous RAP stockpiles not meeting these requirements may be processed (crushing and screening) and retested.

(2) Conglomerate. Conglomerate RAP stockpiles shall consist of RAP from Class I/ Superpave, or equivalent mixtures only. The coarse aggregate in this RAP shall be crushed aggregate only and may represent more than one aggregate type and/or quality but shall be at least C quality or better. This RAP may have an inconsistent gradation and/or asphalt cement content prior to processing. All conglomerate RAP shall be processed prior to testing by crushing to where all RAP shall pass the 16 mm (5/8 in.) or smaller screen. Conglomerate RAP stockpiles shall not contain steel slag or other expansive material as determined by the Department. Conglomerate RAP stockpiles shall meet the requirements of Article 1004.07(d).

(3) Conglomerate “D” Quality (DQ). Conglomerate DQ RAP stockpiles shall consist of RAP containing coarse aggregate (crushed or round) that is at least D quality or better. This RAP may have an inconsistent gradation and/or asphalt content. Conglomerate DQ RAP stockpiles shall not contain steel slag or other expansive material as determined by the Department. Conglomerate DQ RAP shall meet the requirements of Article 1004.07(d).

Reclaimed Superpave Low ESAL IL-9.5L surface mixtures shall only be placed in conglomerate DQ RAP stockpiles due to the potential for rounded aggregate.

(4) Other. RAP stockpiles that do not meet the requirements of the stockpile categories listed above shall be classified as "Other". "Other" RAP stockpiles shall not be used in any of the Department's bituminous mixtures.

(b) Use. The allowable use of a RAP stockpile shall be set by the lowest quality of coarse aggregate in the RAP stockpile. Class I/Superpave surface mixtures are designated as containing Class B quality coarse aggregate only. Superpave Low ESAL IL-19.0L binder and IL-9.5L surface mixtures are designated as Class C quality coarse aggregate only. Class I/Superpave binder mixtures, bituminous base course mixtures, and bituminous base course widening mixtures are designated as containing Class C quality coarse aggregate only. Bituminous stabilized subbase and BAM shoulders are designated as containing Class D quality coarse aggregate only. Any mixture not listed above shall have the designated quality determined by the Department.

RAP containing steel slag or other expansive material, as determined by the Department, shall be homogeneous and will be approved for use in Class I/Superpave (including Low ESAL) surface mixtures only. RAP stockpiles for use in Class I/Superpave mixtures (including Low ESAL), base course, base course widening and Class B mixtures shall be either homogeneous or conglomerate RAP stockpiles except conglomerate RAP stockpiles shall not be used in Superpave surface mixture Ndesign 50 or greater. RAP for use in bituminous aggregate mixtures (BAM) shoulders and BAM stabilized subbase shall be from homogeneous, conglomerate, or conglomerate DQ stockpiles.

Additionally, RAP used in Class I/Superpave surface mixtures shall originate from milled or crushed mixtures only, in which the coarse aggregate is of Class B quality or better. RAP stockpiles for use in Class I/Superpave (including Low ESAL) binder mixes as well as base course, base course widening and Class B mixtures shall originate from milled or processed surface mixture, binder mixture, or a combination of both mixtures uniformly blended to the satisfaction of the Engineer, in which the coarse aggregate is of Class C quality or better.

(c) Contaminants. RAP containing contaminants, such as earth, brick, sand, concrete, sheet asphalt, bituminous surface treatment (i.e. chip seal), pavement fabric, etc., will be unacceptable unless the contaminants are removed to the satisfaction of the Engineer. Sheet asphalt shall be stockpiled separately.

(d) Testing. All RAP shall be sampled and tested either during or after stockpiling.

For testing during stockpiling, washed extraction samples shall be run at the minimum frequency of one sample per 450 metric tons (500 tons) for the first 1800 metric tons (2,000 tons) and one sample per 1800 metric tons (2,000 tons) thereafter. A minimum of five tests shall be required for stockpiles less than 3600 metric tons (4,000 tons).

For testing existing stockpiles, the Contractor shall submit a plan for approval to the District proposing a satisfactory method of sampling and testing the RAP pile either in-situ or by restocking. The sampling plan shall meet the minimum frequency required above and detail the procedure used to extract representative samples throughout the pile for testing.

Before extraction, each field sample shall be split to test sample size. One of the two test samples from the final split shall be labeled and stored for Department use. The Contractor shall extract the other test sample according to Department procedure. The Engineer reserves the right to test any sample (split or Department-taken) to verify Contractor test results.

All of the extraction results shall be compiled and averaged for asphalt content and gradation. Individual extraction test results, when compared to the averages, will be accepted if within the tolerances listed below.

Parameter	Homogeneous / Conglomerate	Conglomerate "D" Quality
25 mm (1 in.)		± 5%
12.5 mm (1/2 in.)	± 8%	± 15%
4.75 mm (No. 4)	± 6%	± 13%
2.36 mm (No. 8)	± 5%	
1.18 mm (No. 16)		± 15%
600 μm (No. 30)	± 5%	
75 μm (No. 200)	± 2.0%	± 4.0%
AC	± 0.4%	± 0.5%

If more than 20 percent of the individual sieves are out of the gradation tolerances, or if more than 20 percent of the asphalt content test results fall outside the appropriate tolerances, the RAP will not be allowed to be used in the Department's bituminous concrete mixtures unless the RAP representing the failing tests is removed from the stockpile to the satisfaction of the Engineer. All test data and acceptance ranges shall be sent to the District for evaluation.

With the approval of the Engineer, the ignition oven may be substituted for extractions according to the Illinois Test Procedure, "Calibration of the Ignition Oven for the Purpose of Characterizing Reclaimed Asphalt Pavement (RAP)".

- (e) Designs. At the Contractor's option, bituminous concrete mixtures may be constructed utilizing RAP material meeting the above detailed requirements. The amount of RAP included in the mixture shall not exceed the percentages specified in the plans.

RAP designs shall be submitted for volumetric verification. If additional RAP stockpiles are tested and found that no more than 20 percent of the results, as defined under "Testing" herein, are outside of the control tolerances set for the original RAP stockpile and design, and meets all of the requirements herein, the additional RAP stockpiles may be used in the original mix design at the percent previously verified.

- (f) Production. The coarse aggregate in all RAP used shall be equal to or less than the nominal maximum size requirement for the bituminous mixture being produced.

To remove or reduce agglomerated material, a scalping screen, crushing unit or comparable sizing device approved by the Engineer shall be used in the RAP feed system to remove or reduce oversized material. If material passing the sizing device adversely affects the mix production or quality of the mix, the sizing device shall be set at a size specified by the Engineer.

If the RAP control tolerances or QC/QA test results require corrective action, the Contractor shall cease production of the mixture containing RAP and either switch to the virgin aggregate design or submit a new RAP design.

80011

REMOVE AND RE-ERECT STEEL PLATE BEAM GUARDRAIL AND TRAFFIC BARRIER TERMINALS (BDE)

Effective: January 1, 2001

Revised: January 1, 2005

Description. This work shall consist of replacing existing steel block-outs with wood or plastic block-outs during the removal and re-erection of steel plate beam guardrail and traffic barrier terminals.

Wood block-outs shall be according to the current standard applicable to the type of guardrail or terminal section being re-erected. Plastic blockouts shall be on the Department's approved list.

The existing steel posts may be drilled to match the bolt pattern shown on standard 630001 for the block-out or a new steel post shall be provided.

All existing "C" posts shall be removed and new posts shall be provided.

Basis of Payment. This work will not be paid for separately but shall be included in the contract unit price per meter (foot) for REMOVE AND RE-ERECT STEEL PLATE BEAM GUARDRAIL, of the type specified, and at the contract unit price each for REMOVE AND RE-ERECT TRAFFIC BARRIER TERMINALS, of the type specified.

80032

SEEDING AND SODDING (BDE)

Effective: July 1, 2004

Revised: November 1, 2004

Revise Class 1A and 2A seeding mixtures shown in Table 1 of Article 250.07 of the Standard Specifications to read:

"Table 1 - SEEDING MIXTURES		
Class – Type	Seeds	kg/hectare (lb/acre)
1A Salt Tolerant Lawn Mixture 7/	Bluegrass	70 (60)
	Perennial Ryegrass	20 (20)
	Audubon Red Fescue	20 (20)
	Rescue 911 Hard Fescue	20 (20)
	Fults Salt Grass*	70 (60)
2A Salt Tolerant Roadside Mixture 7/	Alta Fescue or Ky 31	70 (60)
	Perennial Ryegrass	20 (20)
	Audubon Red Fescue	20 (30)
	Rescue 911 Hard Fescue	20 (30)
	Fults Salt Grass 1/	70 (60)"

Revise Note 7 of Article 250.07 of the Standard Specifications to read:

"Note 7. In Districts 1 through 6, the planting times shall be April 1 to June 15 and August 1 to November 1. In Districts 7 through 9, the planting times shall be March 1 to June 1 and August 1 to November 15. Seeding may be performed outside these dates provided the Contractor guarantees a minimum of 75 percent coverage over the entire seeded area(s) after one growing season. The guarantee shall be submitted to the Engineer in writing prior to performing the work. After one growing season, areas not sustaining 75 percent growth shall be interseeded or reseeded, as determined by the Engineer, at the Contractor's expense."

Add the following sentence to Article 252.04 of the Standard Specifications:

"Sod shall not be placed during the months of July and August."

Revise the first paragraph of Article 252.08 of the Standard Specifications to read:

"252.08 Sod Watering. Within two hours after the sod has been placed, water shall be applied at a rate of 25 L/sq m (5 gal/sq yd). Additional water shall be applied every other day at a rate of 15 L/sq m (3 gal/sq yd) for a total of 15 additional waterings. During periods exceeding 26 °C (80 °F) or subnormal rainfall, the schedule of additional waterings may be altered with the approval of the Engineer."

Revise Article 252.09 of the Standard Specifications to read:

“252.09 Supplemental Watering. During periods exceeding 26 °C (80 °F) or subnormal rainfall, supplemental watering may be required after the initial and additional waterings. Supplemental watering shall be performed when directed by the Engineer. Water shall be applied at the rate specified by the Engineer within 24 hours of notice.”

Revise the first and third paragraphs of Article 252.12 of the Standard Specifications to read:

“252.12 Method of Measurement. Sodding will be measured for payment in place and the area computed in square meters (square yards). To be acceptable for final payment, the sod shall be growing in place for a minimum of 30 days in a live, healthy condition. When directed by the Engineer, any defective or unacceptable sod shall be removed, replaced and watered by the Contractor at his/her own expense.”

“Supplemental watering will be measured for payment in units of 1000 L (1000 gal) of water applied on the sodded areas. Waterings performed in addition to those required by Article 252.08 or after the 30 day establishment period will be considered as supplemental watering.”

Replace the first paragraph of Article 252.13 of the Standard Specifications with the following:

“252.13 Basis of Payment. Sodding will be paid for at the contract unit price per square meter (square yard) for SODDING or SODDING, SALT TOLERANT according to the following schedule.

- (a) Initial Payment. Upon placement of sod, 25 percent of the pay item will be paid.
- (b) Final Payment. Upon acceptance of sod, the remaining 75 percent of the pay item will be paid.”

Revise Article 1081.03(b) of the Standard Specifications to read:

“(b) Salt Tolerant Sod.

Variety	Percent by Weight
Buffalo Grass	30%
Buchloe Dactyloides	
Amigo Fineleaf Tall Fescue	20%
Audubon Red Fescue	15%
Rescue 911 Hard Fescue	15%
Rugby Kentucky Bluegrass	5%
Fults Pucinnellia Distans	15%”

Revise Table II of Article 1081.04(c)(6) of the Standard Specifications to read:

TABLE II						
Variety of Seeds	Hard Seed Percent Maximum	Purity Percent Minimum	Pure, Live Seed Percent Minimum	Weed Percent Maximum	Secondary Noxious Weeds No. per kg (oz) Max. Permitted*	Remarks
Alfalfa	20	92	89	0.50	211 (6)	1/
Brome Grass	-	90	75	0.50	175 (5)	-
Clover, Alsike	15	92	87	0.30	211 (6)	2/
Clover, Crimson	15	92	83	0.50	211 (6)	-
Clover, Ladino	15	92	87	0.30	211 (6)	-
Clover, Red	20	92	87	0.30	211 (6)	-
Clover, White Dutch	30	92	87	0.30	211 (6)	3/
Audubon Red Fescue	0	97	82	0.10	105 (3)	-
Fescue, Alta or Ky. 31	-	97	82	1.00	105 (3)	-
Fescue, Creeping Red	-	97	82	1.00	105 (3)	-
Fults Salt Grass	0	98	85	0.10	70 (2)	-
Kentucky Bluegrass	-	97	80	0.30	247 (7)	5/
Lespedeza, Korean	20	92	84	0.50	211 (6)	3/
Oats	-	92	88	0.50	70 (2)	4/
Orchard Grass	-	90	78	1.50	175 (5)	4/
Redtop	-	90	78	1.80	175 (5)	4/
Ryegrass, Perennial, Annual	-	97	85	0.30	175 (5)	4/
Rye, Grain, Winter	-	92	83	0.50	70 (2)	4/
Rescue 911 Hard Fescue	0	97	82	0.10	105 (3)	-
Timothy	-	92	84	0.50	175 (5)	4/
Vetch, Crown	30	92	67	1.00	211 (6)	3/ & 6/
Vetch, Spring	30	92	88	1.00	70 (2)	4/
Vetch, Winter	15	92	83	1.00	105 (3)	4/
Wheat, hard Red Winter	-	92	89	0.50	70 (2)	4/

80131

SELF-CONSOLIDATING CONCRETE FOR PRECAST PRODUCTS (BDE)

Effective: July 1, 2004

Definition. Self-consolidating concrete is a flowable mixture that does not require mechanical vibration for consolidation.

Usage. Self-consolidating concrete may be used for precast concrete products. The design and testing of a self-consolidating concrete mixture shall be according to Section 1020 of the Standard Specifications except as modified herein.

Materials. Materials shall conform to the following requirements:

- (a) Self-Consolidating Admixtures. The self-consolidating admixture system shall consist of either a high range water-reducing admixture only or a high range water-reducing admixture combined with a separate viscosity modifying admixture. The one or two component admixture system shall be capable of producing a flowable concrete that does not require mechanical vibration.

The high range water-reducing admixture shall comply with the requirements of AASHTO M 194, Type F.

The viscosity modifying admixture will be evaluated according to the test methods and mix design proportions referenced in AASHTO M 194, except the following physical requirements shall be met:

- (1) For initial and final set times, the allowable deviation of the test concrete from the reference concrete shall not be more than 1.0 hour earlier or 1.5 hours later.
 - (2) For compressive and flexural strengths, the test concrete shall be a minimum of 90 percent of the reference concrete at 3, 7 and 28 days.
 - (3) The length change of the test concrete shall be a maximum 135 percent of the reference concrete. However, if the length change of the reference concrete is less than 0.030 percent, the length change of the test concrete shall be a maximum 0.010 percentage units greater than the reference concrete.
 - (4) The relative durability factor of the test concrete shall be a minimum 80 percent.
- (b) Fine Aggregate. A fine aggregate used alone in the mix design shall not have an expansion greater than 0.30 percent per ASTM C 1260. For a blend of two or more fine aggregates, the resulting blend shall not have an expansion greater than 0.30 percent.

The aggregate blend expansion will be calculated as follows:

$$\text{Aggregate Blend Expansion} = (a/100 \times A) + (b/100 \times B) + (c/100 \times C) + \dots \text{etc.}$$

Where: a, b, c, ... = percent of aggregate blend

A, B, C, ... = aggregate expansion according to ASTM C 1260

Mix Design Criteria. The slump requirements of Article 1020.04 of the Standard Specifications shall not apply. In addition, the allowable coarse aggregate gradations shall be CA 11, CA 13, CA 14, CA 16, or a blend of these gradations. The fine aggregate proportion shall be a maximum 50 percent by mass (weight) of the total aggregate used.

Trail Batch. A minimum 1 cu m (1 cu yd) trial batch shall be produced. The mixture will be evaluated for air content, slump flow, visual stability index, compressive strength, passing ability, and static/dynamic segregation resistance.

The trial batch shall be scheduled and performed in the presence of the Engineer. Testing shall be performed per the Department's test method or as approved by the Engineer.

For the trial batch, the air content shall be within the top half of the allowable specification range. The slump flow range shall be 510 mm (20 in.) minimum to 710 mm (28 in.) maximum. The visual stability index shall be a maximum of 1. Strength shall be determined at 28 days. At the Contractor's option, strength may be determined for additional days.

Passing ability and static/dynamic segregation resistance shall be determined by tests selected by the Contractor and approved by the Engineer. The visual stability index shall not be used as the sole criteria for evaluating static segregation resistance.

After an acceptable mixture has been batched and tested, the mixture shall also be evaluated for robustness. Robustness shall be evaluated by varying the dosage of the self-consolidating admixture system and water separately. Additional trial batches may be necessary to accomplish this.

When necessary, the trial batches shall be disposed of according to Article 202.03 of the Standard Specifications.

Quality Control. Once testing is completed and acceptable results have been attained, production test frequencies and allowable test ranges for slump flow, visual stability index, passing ability, and static/dynamic segregation resistance shall be proposed. The production test frequencies and allowable test ranges will be approved by the Engineer.

The slump flow range shall be ± 50 mm (± 2 in.) of the target value, and within the overall range of 510 mm (20 in.) minimum to 710 mm (28 in.) maximum. The visual stability index shall be a maximum of 1. The approved test ranges for passing ability and static/dynamic segregation resistance will be based on recommended guidelines determined by the Engineer.

80132

SHOULDER STABILIZATION AT GUARDRAIL (BDE)

Effective: January 1, 2005

Revise the last sentence of the second paragraph of Article 630.06 of the Standard Specifications to read:

“The void around each post shall be backfilled with earth or aggregate and capped with 75 mm (3 in.) of bituminous mixture or grout.”

Replace the last sentence of the third paragraph of Article 630.06 of the Standard Specifications with the following:

“Guardrail posts shall be driven through holes cored in the completed shoulder stabilization. The void around each post shall be backfilled with earth or aggregate and capped with 75 mm (3 in.) of bituminous mixture or grout.”

Add the following paragraph to the end of Article 630.06 of the Standard Specifications:

“When driving guardrail posts through existing shoulders, shoulder stabilization, or other paved areas, the posts shall be driven through cored holes. The void around each post shall be backfilled with earth or aggregate and capped with 75 mm (3 in.) of bituminous mixture or grout.”

80140

STONE FOR EROSION PROTECTION, SEDIMENT CONTROL, AND ROCKFILL (BDE)

Effective: January 1, 2004

Revise the first, second, and third sentences of Article 281.04(a) of the Standard Specifications to read:

“Class A1 bedding material shall be used with riprap Classes A4, A5, B4, and B5. Class A2 bedding material shall be used with riprap Classes A6, A7, B6, and B7. When filter fabric is used, the following substitutions of bedding material may be made: Quality B may be used in lieu of Quality A; Gradation CA 3 may be used in lieu of Gradation RR 1; and Gradation CA 1 may be used in lieu of Gradation RR 2.”

Revise Article 1005.01 of the Standard Specifications to read:

“1005.01 Stone for Erosion Protection, Sediment Control, and Rockfill. The material will be sampled and inspected according to the Bureau of Materials and Physical Research’s policy memorandum, “Inspection of Stone for Erosion Protection, Sediment Control, and Rockfill”. The material shall meet the following requirements.

- (a) Description. The material shall be stone, quarried from undisturbed, consolidated deposits (ledges) of rock reasonably free of shale and shaly stone. The ledges shall be sufficiently thick to produce the desired dimensions. The stone shall be reasonably free of laminations, seams, cracks, and other structural defects or imperfections tending to destroy its resistance to weather. Field stone or boulders will not be accepted.

Bedding material shall be crushed stone, crushed gravel, crushed sandstone, or crushed slag meeting the requirements of Article 1004.01(a).

- (b) Quality. The stone shall meet the following quality requirements.

- (1) Stone for Erosion Protection or Sediment Control. The material shall be quarried from ledges meeting the quality designations listed in the following table.

QUALITY OF STONE FOR EROSION PROTECTION AND SEDIMENT CONTROL		
QUALITY TEST	QUALITY A ^{2/ 3/ 4/}	QUALITY B ^{2/}
Na ₂ SO ₄ Soundness 5 Cycle, AASHTO T 104 ^{1/} Max. % Loss	15	25

1/ As modified by the Department.

2/ Elongated pieces (length is greater than five times the average thickness) shall not exceed ten percent by weight.

3/ The stone, when checked in a full gradation product, shall have a specific gravity (dry) greater than 2.450 as determined by the Department.

4/ The stone shall be reasonably free of chert.

In addition to the above quality requirements, crushed slag used as a bedding material shall also meet the Department's "Test for Leachate".

- (2) Stone for Rockfill. The material shall be quarried from ledges consisting of sound, durable rock reasonably free of objectionable, deleterious material as determined by the Department.

(c) Gradation. The stone shall meet the following gradation requirements.

- (1) Stone for Erosion Protection or Sediment Control. The material shall meet the gradation limits listed in the following tables. All gradations produced shall be well graded.

BEDDING MATERIAL GRADATIONS					
GRAD. NO.	Percent Passing Sieves				
	100 mm	75 mm	50 mm	37.5 mm	4.75 mm
RR 1		100		53±23	8±8
RR 2	100		53±23		8±8

BEDDING MATERIAL GRADATIONS (ENGLISH)					
GRAD. NO.	Percent Passing Sieves				
	4 in.	3 in.	2 in.	1 1/2 in.	No. 4
RR 1		100		53±23	8±8
RR 2	100		53±23		8±8

EROSION PROTECTION AND SEDIMENT CONTROL GRADATIONS														
Grad. No.	Percent Passing Rock Size (kg)													
	455 ^{1/}	270 ^{1/}	180 ^{1/}	135	75	70 ^{1/}	40	20 ^{1/}	18	5	4	3	1	0.5
RR 3								100			50±20			8±8
RR 4						100			50±20					8±8
RR 5			100				50±20						8±8	
RR 6		100			50±20							8±8		
RR 7	100			50±20						8±8				

EROSION PROTECTION AND SEDIMENT CONTROL GRADATIONS														
Grad. No.	Percent Passing Rock Size (lb)													
	1000 ^{1/}	600 ^{1/}	400 ^{1/}	300	170	150 ^{1/}	90	50 ^{1/}	40	12	10	6	3	1
RR 3								100			50±20			8±8
RR 4						100			50±20					8±8
RR 5			100				50±20						8±8	
RR 6		100			50±20							8±8		
RR 7	100			50±20						8±8				

1/ Five percent by weight may be oversize. Each oversize piece shall not exceed the maximum size of the gradation by more than 20 percent.

(2) Stone for Rockfill. The material may be shot rock, primary crusher run, or other specified gradations approved by the Department.”

80117

SUPERPAVE BITUMINOUS CONCRETE MIXTURES (BDE)

Effective: January 1, 2000

Revised: April 1, 2004

Description. This work shall consist of designing, producing and constructing Superpave bituminous concrete mixtures using Illinois Modified Strategic Highway Research Program (SHRP) Superpave criteria. This work shall be according to Sections 406 and 407 of the Standard Specifications and the special provision, "Quality Control/Quality Assurance of Bituminous Concrete Mixtures", except as follows.

Materials.

- (a) Fine Aggregate Blend Requirement. The Contractor may be required to provide FA 20 manufactured sand to meet the design requirements. For mixtures with Ndesign ≥ 90, at least 50 percent of the required fine aggregate fraction shall consist of either stone sand, slag sand, or steel slag sand meeting the FA/FM 20 gradation.
- (b) Reclaimed Asphalt Pavement (RAP). If the Contractor is allowed to use more than 15 percent RAP, as specified in the plans, a softer performance-graded binder may be required as determined by the Engineer.

RAP shall meet the requirements of the special provision, "RAP for Use in Bituminous Concrete Mixtures".

RAP will not be permitted in mixtures containing polymer modifiers.

RAP containing steel slag will be permitted for use in top-lift surface mixtures only.

- (c) Bituminous Material. The asphalt cement (AC) shall be performance-graded (PG) or polymer modified performance-graded (SBS-PG or SBR-PG) meeting the requirements of Article 1009.05 of the Standard Specifications for the grade specified on the plans.

The following additional guidelines shall be used if a polymer modified asphalt is specified:

- (1) The polymer modified asphalt cement shall be shipped, maintained, and stored at the mix plant according to the manufacturer's requirements. Polymer modified asphalt cement shall be placed in an empty tank and shall not be blended with other asphalt cements.
- (2) The mixture shall be designed using a mixing temperature of 163 ± 3 °C (325 ± 5 °F) and a gyratory compaction temperature of 152 ± 3 °C (305 ± 5 °F).
- (3) Pneumatic-tired rollers will not be allowed unless otherwise specified by the Engineer. A vibratory roller meeting the requirements of Article 406.16 of the Standard Specifications shall be required in the absence of the pneumatic-tired roller.

Laboratory Equipment.

- (a) Superpave Gyratory Compactor. The superpave gyratory compactor (SGC) shall be used for all QC/QA testing.
- (b) Ignition Oven. The ignition oven shall be used to determine the AC content. The ignition oven shall also be used to recover aggregates for all required washed gradations.

The Engineer may waive the ignition oven requirement for AC content if the aggregates to be used are known to have ignition AC content calibration factors which exceed 1.5 percent. If the ignition oven requirement is waived, other Department approved methods shall be used to determine the AC content.

Mixture Design. The Contractor shall submit mix designs, for approval, for each required mixture. Mix designs shall be developed by Level III personnel who have successfully completed the course, "Superpave Mix Design Upgrade". Articles 406.10 and 406.13 of the Standard Specifications shall not apply. The mixtures shall be designed according to the respective Illinois Modified AASHTO references listed below.

AASHTO MP 2	Standard Specification for Superpave Volumetric Mix Design
AASHTO R 30	Standard Practice for Mixture Conditioning of Hot-Mix Asphalt (HMA)
AASHTO PP 28	Standard Practice for Designing Superpave HMA
AASHTO T 209	Theoretical Maximum Specific Gravity and Density of Bituminous Paving Mixtures
AASHTO T 312	Preparing and Determining the Density of Hot Mix Asphalt (HMA) Specimens by Means of the Superpave Gyratory Compactor

AASHTO T 308 Determining the Asphalt Content of Hot Mix Asphalt (HMA) by the Ignition Method

- (a) Mixture Composition. The ingredients of the bituminous mixture shall be combined in such proportions as to produce a mixture conforming to the composition limits by weight. The gradation mixture specified on the plans shall produce a mixture falling within the limits specified in Table 1.

TABLE 1. MIXTURE COMPOSITION (% PASSING) ^{1/}								
Sieve Size	IL-25.0 mm		IL-19.0 mm		IL-12.5 mm ^{4/}		IL-9.5 mm ^{4/}	
	min	max	min	max	Min	max	min	max
37.5 mm (1 1/2 in.)		100						
25 mm (1 in.)	90	100		100				
19 mm (3/4 in.)		90	82	100		100		
12.5 mm (1/2 in.)	45	75	50	85	90	100		100
9.5 mm (3/8 in.)						89	90	100
4.75 mm (#4)	24	42 ^{2/}	24	50 ^{2/}	28	65	28	65
2.36 mm (#8)	16	31	20	36	28	48 ^{3/}	28	48 ^{3/}
1.18 mm (#16)	10	22	10	25	10	32	10	32
600 µm (#30)								
300 µm (#50)	4	12	4	12	4	15	4	15
150 µm (#100)	3	9	3	9	3	10	3	10
75 µm (#200)	3	6	3	6	4	6	4	6

- 1/ Based on percent of total aggregate weight.
- 2/ The mixture composition shall not exceed 40 percent passing the 4.75 mm (#4) sieve for binder courses with Ndesign ≥ 90.
- 3/ The mixture composition shall not exceed 40 percent passing the 2.36 mm (#8) sieve for surface courses with Ndesign ≥ 90.
- 4/ The mixture composition for surface courses shall be according to IL-12.5 mm or IL-9.5 mm, unless otherwise specified by the Engineer.

One of the above gradations shall be used for leveling binder as specified in the plans and according to Article 406.04 of the Standard Specifications.

It is recommended that the selected combined aggregate gradation not pass through the restricted zones specified in Illinois Modified AASHTO MP 2.

- (b) Dust/AC Ratio for Superpave. The ratio of material passing the 75 μm (#200) sieve to total asphalt cement shall not exceed 1.0 for mixture design (based on total weight of mixture).
- (c) Volumetric Requirements. The target value for the air voids of the hot mix asphalt (HMA) shall be 4.0 percent at the design number of gyrations. The VMA and VFA of the HMA design shall be based on the nominal maximum size of the aggregate in the mix and shall conform to the requirements listed in Table 2.

TABLE 2. VOLUMETRIC REQUIREMENTS					
Ndesign	Voids in the Mineral Aggregate (VMA), % minimum				Voids Filled with Asphalt (VFA), %
	IL-25.0	IL-19.0	IL-12.5	IL-9.5	
50	12.0	13.0	14.0	15	65 - 78
70					65 - 75
90					
105					

- (d) Determination of Need for Anti-Stripping Additive. The mixture designer shall determine if an additive is needed in the mix to prevent stripping. The determination will be made on the basis of tests performed according to Illinois Modified T 283 using 4 in. Marshall bricks. To be considered acceptable by the Department as a mixture not susceptible to stripping, the ratio of conditioned to unconditioned split tensile strengths (TSRs) shall be equal to or greater than 0.75. Mixtures, either with or without an additive, with TSRs less than 0.75 will be considered unacceptable.

If it is determined that an additive is required, the additive may be hydrated lime, slaked quicklime, or a liquid additive, at the Contractor's option. The liquid additive shall be selected from the Department's list of approved additives and may be limited to those which have exhibited satisfactory performance in similar mixes.

Dry hydrated lime shall be added at a rate of 1.0 to 1.5 percent by weight of total dry aggregate. Slurry shall be added in such quantity as to provide the required amount of hydrated lime solids by weight of total dry aggregate. The exact rate of application for all anti-stripping additives will be determined by the Department. The method of application shall be according to Article 406.12 of the Standard Specifications.

Personnel. The QC Manager and Level I Technician shall have successfully completed the Department's "Superpave Field Control Course".

Required Plant Tests. Testing shall be conducted to control the production of the bituminous mixture. The Contractor shall use the test methods identified to perform the following mixture tests at a frequency not less than that indicated in Table 3.

TABLE 3. REQUIRED PLANT TESTS for SUPERPAVE		
Parameter	Frequency of Tests	Test Method
Aggregate Gradation Hot bins for batch and continuous plants Individual cold-feeds or combined belt-feed for drier drum plants. (% passing sieves: 12.5 mm (1/2 in.), 4.75 mm (No. 4), 2.36 mm (No. 8), 600 µm (No. 30), 75 µm (No. 200))	1 dry gradation per day of production (either morning or afternoon sample). And 1 washed ignition oven test on the mix per day of production (conduct in afternoon if dry gradation is conducted in the morning or vice versa). NOTE. The order in which the above tests are conducted shall alternate from the previous production day (example: a dry gradation conducted in the morning will be conducted in the afternoon on the next production day and so forth). The dry gradation and washed ignition oven test results shall be plotted on the same control chart.	Illinois Procedure (See Manual of Test Procedures for Materials).
Asphalt Content by Ignition Oven (Note 1.)	1 per half day of production	Illinois Modified AASHTO T 308
Air Voids	Bulk Specific Gravity of Gyratory Sample	1 per half day of production for first 2 days and 1 per day thereafter (first sample of the day)
	Maximum Specific Gravity of Mixture	Illinois Modified AASHTO T 209

Note 1. The Engineer may waive the ignition oven requirement for AC content if the aggregates to be used are known to have ignition AC content calibration factors which exceed 1.5 percent. If the ignition oven requirement is waived, other Department approved methods shall be used to determine the AC content.

During production, the ratio of minus 75 µm (#200) sieve material to total asphalt cement shall be not less than 0.6 nor more than 1.2 and the moisture content of the mixture at discharge from the mixer shall not exceed 0.5 percent. If at any time the ratio of minus 75 µm (#200) material to asphalt or moisture content of the mixture falls outside the stated limits, production of the mix shall cease. The cause shall be determined and corrective action satisfactory to the Engineer shall be initiated prior to resuming production.

During production, mixtures containing an anti-stripping additive will be tested by the Department for stripping according to Illinois Modified T 283. If the mixture fails to meet the TSR criteria for acceptance, no further mixture will be accepted until the Contractor takes such action as is necessary to furnish a mixture meeting the criteria.

Construction Requirements

Lift Thickness.

- (a) Binder and Surface Courses. The minimum compacted lift thickness for constructing bituminous concrete binder and surface courses shall be according to Table 4:

TABLE 4 – MINIMUM COMPACTED LIFT THICKNESS	
Mixture	Thickness, mm (in.)
IL-9.5	32 (1 1/4)
IL-12.5	38 (1 1/2)
IL-19.0	57 (2 1/4)
IL-25.0	76 (3)

- (b) Leveling Binder. Mixtures used for leveling binder shall be as follows:

TABLE 5 – LEVELING BINDER	
Nominal, Compacted, Leveling Binder Thickness, mm (in.)	Mixture
≤ 32 (1 1/4)	IL-9.5
32 (1 1/4) to 50 (2)	IL 9.5 or IL-12.5

Density requirements shall apply for leveling binder when the nominal, compacted thickness is 32 mm (1 1/4 in.) or greater for IL-9.5 mixtures and 38 mm (1 1/2 in.) or greater for IL-12.5 mixtures.

- (c) Full-Depth Pavement. The compacted thickness of the initial lift of binder course shall be 100 mm (4 in.). The compacted thickness of succeeding lifts shall meet the minimums specified in Table 4 but not exceed 100 mm (4 in.).

If a vibratory roller is used for breakdown, the compacted thickness of the binder lifts, excluding the top lift, may be increased to 150 mm (6 in.) provided the required density is obtained.

- (d) Bituminous Patching. The minimum compacted lift thickness for constructing bituminous patches shall be according to Table 4.

Control Charts/Limits. Control charts/limits shall be according to QC/QA Class I requirements, except density shall be plotted on the control charts within the following control limits:

TABLE 6. DENSITY CONTROL LIMITS		
Mixture	Parameter	Individual Test
12.5 mm / 9.5 mm	Ndesign ≥ 90	92.0 – 96.0%
12.5 mm / 9.5 mm	Ndesign < 90	92.5 – 97.4%
19.0 mm / 25.0 mm	Ndesign ≥ 90	93.0 – 96.0%
19.0 mm / 25.0 mm	Ndesign < 90	93.0 – 97.4%

Basis of Payment. On resurfacing projects, this work will be paid for at the contract unit price per metric ton (ton) for BITUMINOUS CONCRETE SURFACE COURSE, SUPERPAVE, of the friction aggregate mixture and Ndesign specified, LEVELING BINDER (HAND METHOD), SUPERPAVE, of the Ndesign specified, LEVELING BINDER (MACHINE METHOD), SUPERPAVE, of the Ndesign specified, and BITUMINOUS CONCRETE BINDER COURSE, SUPERPAVE, of the mixture composition and Ndesign specified.

On resurfacing projects in which polymer modifiers are required, this work will be paid for at the contract unit price per metric ton (ton) for POLYMERIZED BITUMINOUS CONCRETE SURFACE COURSE, SUPERPAVE, of the friction aggregate mixture and Ndesign specified, POLYMERIZED LEVELING BINDER (HAND METHOD), SUPERPAVE, of the Ndesign specified, POLYMERIZED LEVELING BINDER (MACHINE METHOD), SUPERPAVE, of the Ndesign specified, and POLYMERIZED BITUMINOUS CONCRETE BINDER COURSE, SUPERPAVE, of the mixture composition and Ndesign specified.

On full-depth pavement projects, this work will be paid for at the contract unit price per square meter (square yard) for BITUMINOUS CONCRETE PAVEMENT, (FULL-DEPTH), SUPERPAVE, of the thickness specified.

On projects where widening is constructed and the entire pavement is then resurfaced, the binder for the widening will be paid for at the contract unit price per square meter (square yard) for BITUMINOUS CONCRETE BINDER COURSE, SUPERPAVE, of the mixture composition, Ndesign, and thickness specified. The surface and binder used to resurface the entire pavement will be paid for according to the paragraphs above for resurfacing projects.

80010

TEMPORARY CONCRETE BARRIER (BDE)

Effective: October 1, 2002

Revised: November 1, 2003

Revise Section 704 of the Standard Specifications to read:

“SECTION 704. TEMPORARY CONCRETE BARRIER

704.01 Description. This work shall consist of furnishing, placing, maintaining, relocating and removing precast concrete barrier at temporary locations as shown on the plans or as directed by the Engineer.

704.02 Materials. Materials shall meet the requirements of the following Articles of Section 1000 - Materials:

Item	Article/Section
(a) Portland Cement Concrete.....	1020
(b) Reinforcement Bars (Note 1)	1006.10(a)(b)
(c) Connecting Pins and Anchoring Pins.....	1006.09
(d) Connecting Loop Bars (Note 2)	
(e) Rapid Set Mortar (Note 3)	

Note 1. Reinforcement bars shall be Grade 400 (Grade 60).

Note 2. Connecting loop bars shall be smooth bars conforming to the requirements of ASTM A 36.

Note 3. Rapid set materials shall be obtained from the Department's approved list of Packaged, Dry, Rapid Hardening Cementitious Materials for Concrete Repairs. For a rapid set mortar mixture, one part packaged rapid set cement shall be combined with two parts fine aggregate, by volume or a packaged rapid set mortar shall be used. Mixing of the rapid set mortar shall be according to the manufacturer's instructions.

CONSTRUCTION REQUIREMENTS

704.03 General. Precast concrete barrier produced after October 1, 2002 shall meet National Cooperative Highway Research Program (NCHRP) Report 350, Category 3, Test Level 3 requirements and have the F shape. Precast concrete barrier shall be constructed according to the Bureau of Materials and Physical Research's Policy Memorandum "Quality Control/Quality Assurance Program for Precast Concrete Products", applicable portions of Sections 504 and 1020, and to the details shown on the plans.

Precast units shall not be removed from the casting beds until a flexural strength of 2,000 kPa (300 psi) or a compressive strength of 10,000 kPa (1400 psi) is attained. When the concrete has attained a compressive strength according to Article 1020.04, and not prior to four days after casting, the units may be loaded, shipped and used.

704.04 Installation. F shape barrier units shall be seated on bare, clean pavement or paved shoulder and pinned together in a smooth, continuous line at the exact locations provided by the Engineer. The barrier unit at each end of the installation shall be secured to the pavement or paved shoulder using six anchoring pins and protected with an impact attenuator as shown on the plans.

F shape and New Jersey shape barrier units shall not be mixed in the same run.

Barrier units or attachments damaged during transportation or handling, or by traffic during the life of the installation, shall be repaired or replaced by the Contractor at his/her expense. The Engineer will be the sole judge in determining which units or attachments require repair or replacement.

The temporary barriers shall be removed when no longer required by the contract. After removal, all anchoring holes in the pavement or paved shoulder shall be filled with a rapid set mortar. Only enough water to permit placement and consolidation by rodding shall be used and the material shall be struck-off flush.

704.05 New Jersey Shape Barrier. New Jersey shape barrier produced prior to October 1, 2002 according to earlier Department standards, may be used until January 1, 2008.

Barrier units or attachments damaged during transportation or handling, or by traffic during the life of the installation, shall be repaired or replaced by the Contractor at his/her expense. The Engineer will be the sole judge in determining which units or attachments require repair or replacement.

F shape and New Jersey shape barrier units shall not be mixed in the same run.

The barrier unit at each end of the installation shall be secured to the pavement or paved shoulder using six dowel bars and protected with an impact attenuator as shown on the plans.

The temporary barriers shall be removed when no longer required by the contract. After removal, all anchoring holes in the pavement or paved shoulder shall be filled with a rapid set mortar. Only enough water to permit placement and consolidation by rodding shall be used and the material shall be struck-off flush.

704.06 Method of Measurement. Temporary concrete barrier will be measured for payment in meters (feet) in place along the centerline of the barrier. When temporary concrete barrier is relocated within the limits of the jobsite, the relocated barrier will be measured for payment in meters (feet) in place along the centerline of the barrier.

704.07 Basis of Payment. When the Contractor furnishes the barrier units, this work will be paid for at the contract unit price per meter (foot) for TEMPORARY CONCRETE BARRIER or RELOCATE TEMPORARY CONCRETE BARRIER.

When the Department furnishes the barrier units, this work will be paid for at the contract unit price per meter (foot) for TEMPORARY CONCRETE BARRIER, STATE OWNED or RELOCATE TEMPORARY CONCRETE BARRIER, STATE OWNED.

Impact attenuators will be paid for separately.”

80092

TEMPORARY EROSION CONTROL (BDE)

Effective: November 1, 2002

Revise the fifth sentence of the third paragraph of Article 280.04(a) of the Standard Specifications to read:

“This work may be constructed of hay or straw bales, extruded UV resistant high density polyethylene panels, erosion control blanket, mulch barrier, aggregate barriers, excavation, seeding, or mulch used separately or in combination, as approved, by the Engineer.”

Add the following paragraphs after the fifth paragraph of Article 280.04(a) of the Standard Specifications.

“A ditch check constructed of extruded, UV resistant, high density polyethylene panels, “M” pins and erosion control blanket shall consist of the following materials:

Extruded, UV resistant, high density polyethylene panels shall have a minimum height of 250 mm (10 in.) and minimum length of 1.0 m (39.4 in.). The panels shall have a 51 mm (2 in.) lip along the bottom of the panel. Each panel shall have a single rib thickness of 4 mm (5/32 in.) with a 12 mm (1/2 in.) distance between the ribs. The panels shall have an average apparent opening size equal to 4.75 mm (No. 4) sieve, with an average of 30 percent open area. The tensile strength of each panel shall be 26.27 kN/m (1800 lb/ft) in the machine direction and 7.3 kN/m (500 lb/ft) in the transverse direction when tested according to ASTM D 4595.

“M” pins shall be at least 76 mm (3 in.) by 686 mm (27 in.), constructed out of deformed grade C1008 D3.5 rod (0.211 in. diameter). The rod shall have a minimum tensile strength of 55 MPa (8000 psi).

Erosion control blanket shall conform to Article 251.04.

A section of erosion control blanket shall be placed transverse to the flowline direction of the ditch prior to the construction of the polyethylene ditch check. The length of the section shall extend from the top of one side of the ditch to the top of the opposite side of the ditch, while the width of the section shall be one roll width of the blanket. The upstream edge of the erosion control blanket shall be secured in a 100 mm (4 in.) trench. The blanket shall be secured in the trench with 200 mm (8 in.) staples placed at 300 mm (1 ft) intervals along the edge before the trench is backfilled. Once the upstream edge of the blanket is secured, the downstream edge shall be secured with 200 mm (8 in.) staples placed at 300 mm (1 ft) intervals along the edge. The polyethylene ditch check shall be installed in the middle of the erosion control blanket, with the lip of each panel facing outward.

The ditch check shall consist of two panels placed back to back forming a single row. Placement of the first two panels shall be at the toe of the backslope or sideslope, with the panels extending across the bottom of the ditch. Subsequent panels shall extend both across the bottom of the ditch and up the opposite sideslope, as well as up the original backslope or sideslope at the distance determined by the Engineer.

The M pins shall be driven through the panel lips to secure the panels to the ground. M pins shall be installed in the center of the panels with adjacent panels overlapping the ends a minimum of 50 mm (2 in.). The pins shall be placed through both sets of panels at each overlap. They shall be installed at an interval of three M pins per one meter (39 in.) length of ditch check. The panels shall be wedged into the M pins at the top to ensure firm contact between the entire bottom of the panels and the soil.”

TRAFFIC BARRIER TERMINALS (BDE)

Effective: January 1, 2003

Revise Article 631.05 of the Standard Specifications to read:

“631.05 Traffic Barrier Terminal, Type 5 and Type 5A. The face of the guardrail shall be installed flush with the face of the bridge rail or parapet.”

Revise Article 631.06 of the Standard Specifications to read:

“631.06 Traffic Barrier Terminal, Type 6. When attaching the end shoe to concrete constructed with forms and with a thickness of 300 mm (12 in.) or less, the holes may be formed, core drilled or an approved 20 mm (3/4 in.) cast-in-place insert may be used.

When attaching the end shoe to concrete constructed with forms and with a thickness greater than 300 mm (12 in.), an approved M20 (3/4 in.) bolt with an approved expansion device may be used in lieu of formed or core drilled holes.

When attaching the end shoe to concrete constructed by slipforming, the holes shall be core drilled.

The tapered, parapet, wood block out shall be used on all appurtenances with a sloped face.

When no bridge approach curb is present, Type B concrete curb shall be constructed as shown on the plans according to Section 606.”

Revise Article 631.07 of the Standard Specifications to read:

“631.07 Traffic Barrier Terminal, Type 6B. Attachment of the end shoe to concrete shall be according to Article 631.06 except the tapered, parapet, wood block out will not be required.”

Delete the third and fourth paragraphs of Article 631.11 of the Standard Specifications.

Add the following paragraph to the end of Article 631.11 of the Standard Specifications:

“Construction of the Type B concrete curb for TRAFFIC BARRIER TERMINAL, TYPE 6 will be paid for according to Article 606.14.”

80098

TRAFFIC CONTROL DEFICIENCY DEDUCTION (BDE)

Effective: April 1, 1992

Revised: January 1, 2005

To ensure a prompt response to incidents involving the integrity of work zone traffic control, the Contractor shall provide a telephone number where a responsible individual can be contacted 24 hours-a-day.

When the Engineer is notified, or determines a traffic control deficiency exists, he/she will notify and direct the Contractor to correct the deficiency within a specified time. The specified time, which begins upon notification to the Contractor, will be from 1/2 hour to 12 hours based upon the urgency of the situation and the nature of the deficiency. The Engineer shall be the sole judge.

A deficiency may be any lack of repair, maintenance, or non-compliance with the traffic control plan. A deficiency may also be applied to situations where corrective action is not an option such as the use of non-certified flaggers for short term operations; working with lane closures beyond the time allowed in the contract; or failure to perform required contract obligations such as traffic control surveillance.

If the Contractor fails to correct a deficiency within the specified time, a daily monetary deduction will be imposed for each calendar day or fraction thereof the deficiency exists. The calendar day(s) will begin with notification to the Contractor and end with the Engineer's acceptance of the correction. The daily monetary deduction will be either \$1,000 or 0.05 percent of the awarded contract value, whichever is greater. For those deficiencies where corrective action was not an option this monetary deduction will be immediate.

In addition, if the Contractor fails to respond, the Engineer may correct the deficiency and the cost thereof will be deducted from monies due or which may become due the Contractor. This corrective action will in no way relieve the Contractor of his/her contractual requirements or responsibilities.

5729I

TRUCK BED RELEASE AGENT (BDE)

Effective: April 1, 2004

Add the following sentence after the third sentence of the first paragraph of Article 406.14 of the Standard Specifications.

"In addition to the release agent, the Contractor may use a light scatter of manufactured sand (FA 20 or FA 21) evenly distributed over the bed of the vehicle."

80123

WEIGHT CONTROL DEFICIENCY DEDUCTION

Effective: April 1, 2001
Revised: August 1, 2002

The Contractor shall provide accurate weights of materials delivered to the contract for incorporation into the work (whether temporary or permanent) and for which the basis of payment is by weight. These weights shall be documented on delivery tickets which shall identify the source of the material, type of material, the date and time the material was loaded, the contract number, the net weight, the tare weight when applicable and the identification of the transporting vehicle. For aggregates, the Contractor shall have the driver of the vehicle furnish or establish an acceptable alternative to provide the contract number and a copy of the material order to the source for each load. The source is defined as that facility that produces the final material product that is to be incorporated into the contract pay items.

The Department will conduct random, independent vehicle weight checks for material sources according to the procedures outlined in the Documentation Section Policy Statement of the Department's Construction Manual and hereby incorporated by reference. The results of the independent weight checks shall be applicable to all contracts containing this Special Provision. Should the vehicle weight check for a source result in the net weight of material on the vehicle exceeding the net weight of material shown on the delivery ticket by 0.50% (0.70% for aggregates) or more, the Engineer will document the independent vehicle weight check and immediately furnish a copy of the results to the Contractor. No adjustment in pay quantity will be made. Should the vehicle weight check for a source result in the net weight of material shown on the delivery ticket exceeding the net weight of material on the vehicle by 0.50% (0.70% for aggregates) or more, the Engineer will document the independent vehicle weight check and immediately furnish a copy of the results to the Contractor. The Engineer will adjust the net weight shown on the delivery ticket to the checked delivered net weight as determined by the independent vehicle weight check.

The Engineer will also adjust the method of measurement for all contracts for subsequent deliveries of all materials from the source based on the independent weight check. The net weight of all materials delivered to all contracts containing this Special Provision from this source, for which the basis of payment is by weight, will be adjusted by applying a correction factor "A" as determined by the following formula:

$$A = 1.0 - \left(\frac{B - C}{B} \right); \text{ Where } A \leq 1.0; \left(\frac{B - C}{C} \right) > 0.50\% \text{ (0.70\% for aggregates)}$$

Where A = Adjustment factor
B = Net weight shown on delivery ticket
C = Net weight determined from independent weight check

The adjustment factor will be applied as follows:

$$\text{Adjusted Net Weight} = A \times \text{Delivery Ticket Net Weight}$$

The adjustment factor will be imposed until the cause of the deficient weight is identified and corrected by the Contractor to the satisfaction of the Engineer. If the cause of the deficient weight is not identified and corrected within seven (7) calendar days, the source shall cease delivery of all materials to all contracts containing this Special Provision for which the basis of payment is by weight.

Should the Contractor elect to challenge the results of the independent weight check, the Engineer will continue to document the weight of material for which the adjustment factor would be applied. However, provided the Contractor furnishes the Engineer with written documentation that the source scale has been calibrated within seven (7) calendar days after the date of the independent weight check, adjustments in the weight of material paid for will not be applied unless the scale calibration demonstrates that the source scale was not within the specified Department of Agriculture tolerance.

At the Contractor's option, the vehicle may be weighed on a second independent Department of Agriculture certified scale to verify the accuracy of the scale used for the independent weight check.

80048

WORK ZONE TRAFFIC CONTROL DEVICES (BDE)

| Effective: January 1, 2003

Revised: November 1, 2004

Add the following to Article 702.01 of the Standard Specifications:

"All devices and combinations of devices shall meet the requirements of the National Cooperative Highway Research Program (NCHRP) Report 350 for their respective categories. The categories are as follows:

Category 1 includes small, lightweight, channelizing and delineating devices that have been in common use for many years and are known to be crashworthy by crash testing of similar devices or years of demonstrable safe performance. These include cones, tubular markers, flexible delineators and plastic drums with no attachments. Category 1 devices shall be crash tested and accepted or may be self-certified by the manufacturer.

Category 2 includes devices that are not expected to produce significant vehicular velocity change but may otherwise be hazardous. These include drums and vertical panels with lights, barricades and portable sign supports. Category 2 devices shall be crash tested and accepted for Test Level 3.

Category 3 includes devices that are expected to cause significant velocity changes or other potentially harmful reactions to impacting vehicles. These include crash cushions, truck mounted attenuators and other devices not meeting the definitions of Category 1 or 2. Category 3 devices shall be crash tested and accepted for either Test Level 3 or the test level specified.

Category 4 includes portable or trailer-mounted devices such as arrow boards, changeable message signs, temporary traffic signals and area lighting supports. Currently, there is no implementation date set for this category and it is exempt from the NCHRP 350 compliance requirement.

The Contractor shall provide a manufacturer's self-certification letter for each Category 1 device and an FHWA acceptance letter for each Category 2 and Category 3 device used on the contract. The letters shall state the device meets the NCHRP 350 requirements for its respective category and test level, and shall include a detail drawing of the device."

Delete the third, fourth and fifth paragraphs of Article 702.03(b) of the Standard Specifications.

Delete the third sentence of the first paragraph of Article 702.03(c) of the Standard Specifications.

Revise the first sentence of the first paragraph of Article 702.03(e) of the Standard Specifications to read:

"Drums shall be nonmetallic and have alternating reflectorized Type AA or Type AP fluorescent orange and reflectorized white horizontal, circumferential stripes."

Add the following to Article 702.03 of the Standard Specifications:

"(h) Vertical Barricades. Vertical barricades may be used in lieu of cones, drums or Type II barricades to channelize traffic."

Delete the fourth paragraph of Article 702.05(a) of the Standard Specifications.

Revise the sixth paragraph of Article 702.05(a) of the Standard Specifications to read:

"When the work operations exceed four days, all signs shall be post mounted unless the signs are located on the pavement or define a moving or intermittent operation. When approved by the Engineer, a temporary sign stand may be used to support a sign at 1.2 m (5 ft) minimum where posts are impractical. Longitudinal dimensions shown on the plans for the placement of signs may be increased up to 30 m (100 ft) to avoid obstacles, hazards or to improve sight distance, when approved by the Engineer. "ROAD CONSTRUCTION AHEAD" signs will also be required on side roads located within the limits of the mainline "ROAD CONSTRUCTION AHEAD" signs."

Delete all references to "Type 1A barricades" and "wing barricades" throughout Section 702 of the Standard Specifications.

80097

WORKING DAYS (BDE)

Effective: January 1, 2002

The Contractor shall complete the work within 60 working days.

80071

SUBCONTRACTOR MOBILIZATION PAYMENTS (BDE)

Effective: January 2, 2005

To account for the preparatory work and operations necessary for the movement of subcontractor personnel, equipment, supplies, and incidentals to the project site and for all other work or operations that must be performed or costs incurred when beginning work approved for subcontracting in accordance with Article 108.01 of the Standard Specifications, the Contractor shall make a mobilization payment to each subcontractor.

This mobilization payment shall be made at least 14 days prior to the subcontractor starting work. The amount paid shall be equal to 3 percent of the amount of the subcontract reported on form BC 260A submitted for the approval of the subcontractor's work.

This provision shall be incorporated directly or by reference into each subcontract approved by the Department.

80143

SETTING PILES IN ROCK

Effective: November 14, 1996

Revised November 15, 2002

This work shall consist of making excavations, setting piles in rock and placing Class SI Concrete and/or porous granular embankment.

The excavations for each pile shall be made by drilling through ground and/or rock to the minimum embedment depth into sound rock as indicated on the plans. All excavated material shall be disposed of by the Contractor.

In lieu of a separate hole for each pile, the Contractor may excavate a continuous trench for any 2 or more piles in the same line. If a trench is used, placing the concrete and setting the piles shall be done in the same manner as specified for separate holes, filling the trench with concrete for its full length.

The Contractor shall be responsible for hole stability by using accepted drilling methods and temporary casing where site conditions warrant, no permanent casings or side forms will be allowed. All loose rock, earth, debris and water shall be removed from the hole prior to placing concrete. If the flow of water into the hole is excessive or if pumping operations are likely to cause hole instability, the level of water in the hole shall be allowed to stabilize and the concrete placed by tremie methods according to Article 503.08 of the Standard Specifications. The bottom of each hole shall be filled with Class SI Concrete to a depth of at least 150 mm (6 inches). The piles shall be placed in the hole and properly located. The hole shall then be filled with Class SI Concrete up to the top of sound rock.

The piles shall be securely braced and held prior to and during the placing and curing of the concrete until test specimens show that a modulus of rupture of 4.5 MPa (650 psi) has been attained for the Class SI Concrete. Any operations that might injure the concrete around the piles shall be deferred until the concrete attains the required strength.

The remainder of the hole, to the bottom of encasement, shall be filled with porous granular embankment or Class SI Concrete at the option of the Contractor.

This work will be paid for at the contract unit price each for SETTING PILES IN ROCK. The Class SI Concrete and/or porous granular embankment required around each pile shall not be paid for separately but shall be included in this item. The furnishing of piles is not included in this item but will be paid for elsewhere in this contract.

STEEL COST ADJUSTMENT (BDE)

Effective: April 2, 2004

Revised: July 1, 2004

Description. At the bidder's option, a steel cost adjustment will be made to provide additional compensation to the Contractor or a credit to the Department for fluctuations in steel prices. The bidder must indicate on the attached form whether or not steel cost adjustments will be part of this contract. This attached form shall be submitted with the bid. Failure to submit the form shall make this contract exempt of steel cost adjustments.

Types of Steel Products. An adjustment will be made for fluctuations in the cost of steel used in the manufacture of the following items:

Metal Piling (excluding temporary sheet piling)
Structural Steel
Reinforcing Steel

Other steel materials such as dowel bars, tie bars, mesh reinforcement, guardrail, steel traffic signal and light poles, towers and mast arms, metal railings (excluding wire fence), frames and grates, and other miscellaneous items will be subject to a steel cost adjustment when the pay item they are used in has a contract value of \$10,000 or greater.

Documentation. Sufficient documentation shall be furnished to the Engineer to verify the following:

- (a) Evidence that increased or decreased steel costs have been passed on to the Contractor.
- (b) The dates and quantity of steel, in kg (lb), shipped from the mill to the fabricator.
- (c) The quantity of steel, in kg (lb), incorporated into the various items of work covered by this special provision. The Department reserves the right to verify submitted quantities.

Method of Adjustment. Steel cost adjustments will be computed as follows:

$$SCA = Q \times D$$

Where: SCA = steel cost adjustment, in dollars
Q = quantity of steel incorporated into the work, in kg (lb)
D = price factor, in dollars per kg (lb)

$$D = CBP_M - CBP_L$$

Where: CBP_M = The average of the Consumer Buying Price indices for Shredded Auto Scrap (Chicago) and No. 1 Heavy Melt (Chicago) as published by the American Metal Market (AMM) for the day the steel is shipped from the mill. The indices will be converted from dollars per ton to dollars per kg (lb).

CBP_L = The average of the Consumer Buying Price indices for Shredded Auto Scrap (Chicago) and No. 1 Heavy Melt (Chicago) as published by the AMM for the day the contract is let. The indices will be converted from dollars per ton to dollars per kg (lb).

The unit masses (weights) of steel that will be used to calculate the steel cost adjustment for the various items are shown in the attached table.

No steel cost adjustment will be made for any products manufactured from steel having a mill shipping date prior to the letting date.

If the Contractor fails to provide the required documentation, the method of adjustment will be calculated as described above; however, the CBP_M will be based on the date the steel arrives at the job site. In this case, an adjustment will only be made when there is a decrease in steel costs.

Basis of Payment. Steel cost adjustments may be positive or negative but will only be made when there is a difference between the CBP_L and CBP_M in excess of five percent, as calculated by:

$$\text{Percent Difference} = \{(CBP_L - CBP_M) \div CBP_L\} \times 100$$

Steel cost adjustments will be calculated by the Engineer and will be paid or deducted when all other contract requirements for the steel items are satisfied. Adjustments will only be made for fluctuations in the cost of the steel as described herein. No adjustment will be made for changes in the cost of manufacturing, fabrication, shipping, storage, etc.

Attachment

Item	Unit Mass (Weight)
Metal Piling (excluding temporary sheet piling)	
Furnishing Metal Pile Shells 305 mm (12 in.), 3.80 mm (0.179 in.) wall thickness)	34 kg/m (23 lb/ft)
Furnishing Metal Pile Shells 305 mm (12 in.), 6.35 mm (0.250 in.) wall thickness)	48 kg/m (32 lb/ft)
Furnishing Metal Pile Shells 356 mm (14 in.), 6.35 mm (0.250 in.) wall thickness)	55 kg/m (37 lb/ft)
Other piling	See plans
Structural Steel	See plans for weights
Reinforcing Steel	See plans for weights
Dowel Bars and Tie Bars	3 kg (6 lb) each
Mesh Reinforcement	310 kg/sq m (63 lb/100 sq ft)
Guardrail	
Steel Plate Beam Guardrail, Type A w/steel posts	30 kg/m (20 lb/ft)
Steel Plate Beam Guardrail, Type B w/steel posts	45 kg/m (30 lb/ft)
Steel Plate Beam Guardrail, Types A and B w/wood posts	12 kg/m (8 lb/ft)
Steel Plate Beam Guardrail, Type 2	140 kg (305 lb) each
Steel Plate Beam Guardrail, Type 6	570 kg (1260 lb) each
Traffic Barrier Terminal, Type 1 Special (Tangent)	330 kg (730 lb) each
Traffic Barrier Terminal, Type 1 Special (Flared)	185 kg (410 lb) each
Steel Traffic Signal and Light Poles, Towers and Mast Arms	
Traffic Signal Post	16 kg/m (11 lb/ft)
Light Pole, Tenon Mount and Twin Mount, 9 m – 12 m (30 - 40 ft)	21 kg/m (14 lb/ft)
Light Pole, Tenon Mount and Twin Mount, 13.5 m – 16.5 m (45 - 55 ft)	31 kg/m (21 lb/ft)
Light Pole w/Mast Arm, 9 m – 15.2 m (30 - 50 ft)	19 kg/m (13 lb/ft)
Light Pole w/Mast Arm, 16.5 m – 18 m (55 - 60 ft)	28 kg/m (19 lb/ft)
Light Tower w/Luminaire Mount, 24 m – 33.5 m (80 - 110 ft)	46 kg/m (31 lb/ft)
Light Tower w/Luminaire Mount, 36.5 m – 42.5 m (120 - 140 ft)	97 kg/m (65 lb/ft)
Light Tower w/Luminaire Mount, 45.5 m – 48.5 m (150 - 160 ft)	119 kg/m (80 lb/ft)
Metal Railings (excluding wire fence)	
Steel Railing, Type SM	95 kg/m (64 lb/ft)
Steel Railing, Type S-1	58 kg/m (39 lb/ft)
Steel Railing, Type T-1	79 kg/m (53 lb/ft)
Steel Bridge Rail	77 kg/m (52 lb/ft)
Frames and Grates	
Frame	115 kg (250 lb)
Lids and Grates	70 kg (150 lb)

RETURN WITH BID

**ILLINOIS DEPARTMENT
OF TRANSPORTATION**

**OPTION FOR
STEEL COST ADJUSTMENT**

The bidder shall submit this form with his/her bid. Failure to submit the form shall make this contract exempt of steel cost adjustments. After award, this form, when submitted shall become part of the contract.

Contract No.: _____

Company Name: _____

Contractor's Option:

Is your company opting to include this special provision as part of the contract plans?

Yes No

Signature: _____ **Date:** _____

80127



DEPARTMENT OF THE ARMY
U.S. ARMY ENGINEER DISTRICT, LOUISVILLE
CORPS OF ENGINEERS
NEWBURGH REGULATORY OFFICE
P.O. Box 489
NEWBURGH, INDIANA 47629-0489
FAX: (812) 858-2678
<http://www.lrl.usace.army.mil>

FAP Route 332 (IL 1)
Section (24BR-1)BR
Clark County

July 3, 2004

Operations Division
Regulatory Branch (South)
ID No. 200400846-sew

Mr. D. Clark
Illinois Department of Transportation
13473 IL Highway 133
P.O. Box 610
Paris, Illinois 61944

Dear Mr. Clark:

This is in response to your request for authorization to replace an existing bridge along Illinois Route 1 (FAP 332) over Mill Creek, just north of West Union, Clark County, Illinois, with a triple span precast, prestressed concrete I-beam bridge with integral abutments. The information supplied by you was reviewed to determine whether a Department of the Army (DA) permit will be required under the provisions of Section 404 of the Clean Water Act.

Your project is considered a discharge of fill for a road crossing. The project is authorized under the provisions of 33 CFR 330 Nationwide Permit (NWP) No. 14, Linear Transportation Crossings, as published in the Federal Register January 15, 2002. Under the provisions of this authorization you must comply with the enclosed:

1. Terms for Nationwide Permit No. 14
2. Nationwide Permit General Conditions
3. Water Quality Certification Conditions issued by the Illinois Environmental Protection Agency (ILEPA).

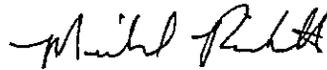
This decision is valid for 2 years from the date of this letter. The enclosed Compliance Certification should be signed and returned when the project is completed. If your project is not completed within this 2-year period or if your project is modified, you must contact us for another permit determination. A copy of this letter is being sent to the ILEPA.

If you have any questions, please contact Sam Werner by writing to

FAP Route 332 (IL 1)
Section (24BR-1)BR
Clark County

the above address, ATTN: CELRL-OP-FS, or by calling (812) 853-5631. Any correspondence on this matter should refer to our ID No. 200400846-sew.

Sincerely,



Michael Ricketts
Regulatory Specialist
Regulatory Branch

Enclosure

Copy Furnished:

ADDRESS FOR COORDINATING AGENCY

Mr. Bernard Killian
Director
Permits Section
Environmental Protection Agency
1020 North Grand Avenue East
P.O. Box 19276
Springfield, Illinois 62794-9676

Compliance Certification:

Permit Number: 200400846-sew

Name of Permittee: Illinois Dept. of Transportation, Div. of
Highways/ District 5

Date of Issuance: 3 July 2004

Upon completion of the activity authorized by this permit and any mitigation required by this permit, sign this certification and return it to the following address:

U.S. Army Corps of Engineers
CELRL-OP-FS
P.O. Box 59
Louisville, Kentucky 40201

Please note that your permitted activity is subject to a compliance inspection by an U.S. Army Corps of Engineers representative. If you fail to comply with this permit you are subject to permit suspension, modification, or revocation.

I hereby certify that the work authorized by the above referenced permit has been completed in accordance with the terms and conditions of the said permit, and required mitigation was completed in accordance with the permit conditions.

Signature of Permittee

Attachment 2

ILLINOIS EPA WATER QUALITY CERTIFICATION
REGIONAL CONDITIONS FOR NATIONWIDE PERMIT 14

1. The affected area of the stream channel shall not exceed 100 linear feet, as measured along the stream corridor.
2. Temporary runarounds shall be constructed of clean course aggregate.
3. Any spoil material excavated, dredged or otherwise produced must not be returned to the waterway but must be deposited in a self-contained area in compliance with all state statutes, as determined by the Illinois EPA.
4. Any backfilling must be done with clean material and placed in a manner to prevent violation of applicable water quality standards.
5. The applicant shall not cause:
 - A. violation of applicable water quality standards of the Illinois Pollution Control Board, Title 35, Subtitle C: Water Pollution Rules and Regulation;
 - B. water pollution defined and prohibited by the Illinois Environmental Protection Act; or
 - C. interference with water use practices near public recreation areas or water supply intakes.
6. All areas affected by construction shall be mulched and seeded as soon after construction as possible. The applicant shall undertake necessary measures and procedures to reduce erosion during construction. Interim measures to prevent erosion during construction shall be taken and may include the installation of staked straw bales, sedimentation basins and temporary mulching. All construction within the waterway shall be conducted during zero or low flow conditions. The applicant shall be responsible for obtaining an NPDES Storm Water Permit prior to initiating construction if the construction activity associated with the project will result in the disturbance of 5 (five) or more acres, total land area. An NPDES Storm Water Permit may be obtained by submitting a properly completed Notice of Intent (NOI) form by certified mail to the Agency's Division of Water Pollution Control, Permit Section.
7. The applicant shall implement erosion control measures consistent with the "Illinois Urban Manual" (IEPA/USDA, NRCS; 1995).



U.S Army Corps
Of Engineers
Louisville District

Nationwide Permit Summary

No. 14, LINEAR TRANSPORTATION PROJECTS (NWP Final Notice, 67 FR 2080)

Activities required for the construction, expansion, modification, or improvement of linear transportation crossings (e.g., highways, railways, trails, and airport runways and taxiways) in waters of the United States, including wetlands, provided the activity meets the following criteria:

a. This NWP is subject to the following acreage and linear limits:

(1) For public linear transportation projects in non-tidal waters, provided the discharge does not cause the loss of greater than 1/2 acre of waters of the United States, or

(2) For public linear transportation projects in tidal waters or non-tidal wetlands adjacent to tidal waters, provided the discharge does not cause the loss of greater than 1/3 acre of waters of the United States,

b. The permittee must notify the District Engineer in accordance with General Condition 13 if any of the following criteria are met:

(1) The discharge causes the loss of greater than 1/10 acre of waters of the United States; or

(2) There is a discharge in a special aquatic site, including wetlands;

c. The notification must include a compensatory mitigation proposal to offset permanent losses of waters of the United States to ensure that those losses result only in minimal adverse effects to the aquatic environment and a statement describing how temporary losses of waters of the United States will be minimized to the maximum extent practicable;

d. For discharges in special aquatic sites, including wetlands, the notification must include a delineation of the affected special aquatic sites;

e. The width of the fill is limited to the minimum necessary for the crossing;

f. This permit does not authorize stream channelization, and the authorized activities must not cause more than minimal changes to the hydraulic flow characteristics of the stream, increase flooding, or cause more than minimal degradation of water quality of any stream (see General Conditions 9 and 21);

g. This permit cannot be used to authorize non-linear features commonly associated with transportation projects, such as vehicle maintenance or storage buildings, parking lots, train stations, or aircraft hangars; and

h. The crossing is a single and complete project for crossing a water of the United States. Where a road segment (i.e., the shortest segment of a road with independent utility that is part of a larger project) has multiple crossings of streams (several single and complete projects) the Corps will consider whether it should use its discretionary authority to require an individual permit. (Sections 10 and 404)

Note: Some discharges for the construction of farm roads, forest roads, or temporary roads for moving mining equipment may be eligible for an exemption from the need for a Section 404 permit (see 33 CFR 323.4).

NATIONWIDE PERMIT CONDITIONS

General Conditions: The following general conditions must be followed in order for any authorization by a NWP to be valid:

1. **Navigation.** No activity may cause more than a minimal adverse effect on navigation.

2. **Proper Maintenance.** Any structure or fill authorized shall be properly maintained, including maintenance to ensure public safety.

3. **Soil Erosion and Sediment Controls.** Appropriate soil erosion and sediment controls must be used and maintained in effective operating condition during construction, and all exposed soil and other fills, as well as any work below the ordinary high water mark or high tide line, must be permanently stabilized at the earliest practicable date. Permittees are encouraged to perform work within waters of the United States during periods of low-flow or no-flow.

4. **Aquatic Life Movements.** No activity may substantially disrupt the life-cycle movements of those species of aquatic life indigenous to the waterbody, including those species that normally migrate through the area, unless the activity's primary purpose is to impound water. Culverts placed in streams must be installed to maintain low flow conditions.

5. **Equipment.** Heavy equipment working in wetlands must be placed on mats, or other measures must be taken to minimize soil disturbance.

6. **Regional and Case-By-Case Conditions.** The activity must comply with any regional conditions, which may have been added by the Division Engineer (see 33 CFR 330.4(e)) and with any case specific conditions added by the Corps or by the state or tribe in its Section 401 Water Quality Certification and Coastal Zone Management Act consistency determination.

7. **Wild and Scenic Rivers.** No activity may occur in a component of the National Wild and Scenic River System; or in a river officially designated by Congress as a "study river" for possible mix inclusion in the system, while the river is in an official study status; unless the appropriate Federal agency, with direct management responsibility for such river, has determined in writing that the proposed activity will not adversely affect the Wild and Scenic River designation, or study status.

Information on Wild and Scenic Rivers may be obtained from the appropriate Federal land management agency in the area (e.g., National Park Service, US Forest Service, Bureau of Land Management, US Fish and Wildlife Service).

8. Tribal Rights. No activity or its operation may impair reserved tribal rights, including, but not limited to, reserved water rights and treaty fishing and hunting rights.

9. Water Quality. (a) In certain States and tribal lands an individual 401 water quality certification must be obtained or waived (See 33 CFR 330.4(c)).

(b) For NWP's 12, 14, 17, 18, 32, 39, 40, 42, 43, and 44, where the State or tribal 401 certification (either generically or individually) does not require or approve a water quality management measures, the permittee must provide water quality management measures that will ensure that the authorized work does not result in more than minimal degradation of water quality (or the Corps determines that compliance with state or local standards, where applicable, will ensure no more than minimal adverse effect on water quality). An important component of a water quality management plan includes stormwater management that minimizes degradation of the downstream aquatic system, including water quality (Refer to General Condition 21 for stormwater management requirements). Another important component of a water quality management plan is the establishment and maintenance of vegetated buffers next to open waters, including streams (Refer to General Condition 19 for vegetated buffer requirements for the NWP's). This condition is only applicable to projects that have the potential to affect water quality. While appropriate measures must be taken, in most cases it is not necessary to conduct detailed studies to identify such measures or to require monitoring.

10. Coastal Zone Management. In certain states, an individual state coastal zone management consistency concurrence must be obtained or waived (see 33 CFR 330.4(d)).

11. Endangered Species. (a) No activity is authorized under any NWP, which is likely to jeopardize the continued existence of a threatened or endangered species, or a species proposed for such designation, as identified under the Federal Endangered Species Act, or which will destroy or adversely modify the critical habitat of such species. Non-federal permittees shall notify the District Engineer if any listed species or designated critical habitat might be affected or is in the vicinity of the project, or is located in the designated critical habitat and shall not begin work on the activity until notified by the District Engineer that the requirements of the Endangered Species Act have been satisfied and that the activity is authorized. For activities that may affect Federally-listed endangered or threatened species or designated critical habitat, the notification must include the name(s) of the endangered or threatened species that may be affected by the proposed work or that utilize the designated critical habitat that may be affected by the proposed work. As a result of formal or informal consultation with the FWS or NMFS, the District Engineer may add species-specific regional endangered species conditions to the NWP's.

(b) Authorization of an activity by a nationwide permit does not authorize the 'take' of a threatened or endangered species as defined under the Federal Endangered Species Act. In the absence of

separate authorization (e.g., an ESA Section 10 Permit, a Biological Opinion with 'incidental take' provisions, etc.) from the US Fish and Wildlife Service or the National Marine Fisheries Service, both lethal and non-lethal 'takes' of protected species are in violation of the Endangered Species Act. Information on the location of threatened and endangered species and their critical habitat can be obtained directly from the offices of the US Fish and Wildlife Service and National Marine Fisheries Service or their World Wide Web pages at <http://www.fws.gov/endspp/endspp.html> and http://www.nmfs.noaa.gov/prot_res/overview/es.html, respectively.

12. Historic Properties. No activity, which may affect historic properties, listed, or eligible for listing, in the National Register of Historic Places is authorized, until the DE has complied with the provisions of 33 CFR part 325, Appendix C. The prospective permittee must notify the District Engineer if the authorized activity may affect any historic properties listed, determined to be eligible, or which the prospective permittee has reason to believe may be eligible for listing on the National Register of Historic Places, and shall not begin the activity until notified by the District Engineer that the requirements of the National Historic Preservation Act have been satisfied and that the activity is authorized. Information on the location and existence of historic resources can be obtained from the State Historic Preservation Office and the National Register of Historic Places (see 33 CFR 330.4(g)). For activities that may affect historic properties listed in, or eligible for listing in, the National Register of Historic Places, the notification must state which historic property may be affected by the proposed work or include a vicinity map indicating the location of the historic property.

13. Notification. (a) Timing: Where required by the terms of the NWP, the prospective permittee must notify the District Engineer with a preconstruction notification (PCN) as early as possible. The District Engineer must determine if the PCN is complete within 30 days of the date of receipt and can request the additional information necessary to make the PCN complete only once. However, if the prospective permittee does not provide all of the requested information, then the District Engineer will notify the prospective permittee that the PCN is still incomplete and the PCN review process will not commence until all of the requested information has been received by the District Engineer. The prospective permittee shall not begin the activity:

- (1) Until notified in writing by the District Engineer that the activity may proceed under the NWP with any special conditions imposed by the District or Division Engineer; or
- (2) If notified in writing by the District or Division Engineer that an individual permit is required; or

(3) Unless 45 days have passed from the District Engineer's receipt of the complete notification and the prospective permittee has not received written notice from the District or Division Engineer. Subsequently, the permittee's right to proceed under the NWP may be modified, suspended, or revoked only in accordance with the procedure set forth in 33 CFR 330.5(d)(2).

(b) Contents of Notification: The notification must be in writing and include the following information:

- (1) Name, address, and telephone numbers of the prospective permittee;
- (2) Location of the proposed project;

(3) Brief description of the proposed project; the project's purpose; direct and indirect adverse environmental effects the project would cause; any other NWP(s), regional general permit(s), or individual permit(s) Used or intended to be Used to authorize any part of the proposed project or any related activity. Sketches should be provided when necessary to show that the activity complies with the terms of the NWP (Sketches usually clarify the project and when provided result in a quicker decision); and

(4) For NWPs 7, 12, 14, 18, 21, 34, 38, 39, 40, 41, 42, and 43, the PCN must also include a delineation of affected special aquatic sites, including wetlands, vegetated shallows (e.g., submerged aquatic vegetation, seagrass beds), and riffle and pool complexes (see paragraph 13(f));

(5) For NWP 7, Outfall Structures and Maintenance, the PCN must include information regarding the original design capacities and configurations of those areas of the facility where maintenance dredging or excavation is proposed.

(6) For NWP 14, Linear Transportation Projects, the PCN must include a compensatory mitigation proposal to offset permanent losses of waters of the US and a statement describing how temporary losses of waters of the US will be minimized to the maximum extent practicable.

(7) For NWP 21, Surface Coal Mining Activities, the PCN must include an Office of Surface Mining (OSM) or state-approved mitigation plan. To be authorized by this NWP, the District Engineer must determine that the activity complies with the terms and conditions of the NWP and that the adverse environmental effects are minimal both individually and cumulatively and must notify the project sponsor of this determination in writing;

(8) For NWP 27, Stream and Wetland Restoration Activities, the PCN must include documentation of the prior condition of the site that will be reverted by the permittee.

(9) For NWP 29, Single-Family Housing, the PCN must also include:

(i) Any past use of this NWP by the individual permittee and/or the permittee's spouse;

(ii) A statement that the single-family housing activity is for a personal residence of the permittee;

(iii) A description of the entire parcel, including its size, and a delineation of wetlands. For the purpose of this NWP, parcels of land measuring 1/4 acre or less will not require a formal on-site delineation. However, the applicant shall provide an indication of where the wetlands are and the amount of wetlands that exists on the property. For parcels greater than 1/4 acre in size, a formal wetland delineation must be prepared in accordance with the current method required by the Corps. (See paragraph 13(f));

(iv) A written description of all land (including, if available, legal descriptions) owned by the prospective permittee and/or the prospective permittee's spouse, within a one mile radius of the parcel, in any form of ownership (including any land owned as a partner, corporation, joint tenant, co-tenant, or as a tenant-by-the-entirety) and any land on which a purchase and sale agreement or other contract for sale or purchase has been executed;

(10) For NWP 31, Maintenance of Existing Flood Control Facilities, the prospective permittee must either notify the District Engineer with a PCN prior to each maintenance activity or submit a five year (or less) maintenance plan. In addition, the PCN must include all

of the following:

(i) Sufficient baseline information so as to identify the approved channel depths and configurations and existing facilities. Minor deviations are authorized, provided the approved flood control protection or drainage is not increased;

(ii) A delineation of any affected special aquatic sites, including wetlands; and,

(iii) Location of the dredged material disposal site.

(11) For NWP 33, Temporary Construction, Access, and Dewatering, the PCN must also include a restoration plan of reasonable measures to avoid and minimize adverse effects to aquatic resources.

(12) For NWP's 39, 43, and 44, the PCN must also include a written statement to the District Engineer explaining how avoidance and minimization of losses of waters of the US were achieved on the project site.

(13) For NWP 39 and NWP 42, the PCN must include a compensatory mitigation proposal that offsets unavoidable losses of waters of the US or justification explaining why compensatory mitigation should not be required. For discharges that cause the loss of greater than 300 linear feet of an intermittent stream bed, to be authorized, the District Engineer must determine that the activity complies with the other terms and conditions of the NWP, determine adverse environmental effects are minimal both individually and cumulatively, and waive the limitation on stream impacts in writing before the permittee may proceed;

(14) For NWP 40 (Agricultural Activities), the PCN must include a compensatory mitigation proposal to offset losses of waters of the US. This NWP does not authorize the relocation of greater than 300 linear-feet of existing serviceable drainage ditches constructed in non-tidal streams unless, for drainage ditches constructed in intermittent non-tidal streams, the District Engineer waives this criterion in writing, and the District Engineer has determined that the project complies with all terms and conditions of this NWP, and that any adverse impacts of the project on the aquatic environment are minimal, both individually and cumulatively;

(15) For NWP 43 (Stormwater Management Facilities), the PCN must include, for the construction of new stormwater management facilities, a maintenance plan (in accordance with state and local requirements, if applicable) and a compensatory mitigation proposal to offset losses of waters of the US. For discharges that cause the loss of greater than 300 linear feet of an intermittent streambed, to be authorized, the District Engineer must determine that the activity complies with the other terms and conditions of the NWP, determine adverse environmental effects are minimal both individually and cumulatively, and waive the limitation on stream impacts in writing before the permittee may proceed;

(16) For NWP 44, Mining Activities, the PCN must include a description of all waters of the US adversely affected by the project, a description of measures taken to minimize adverse effects to waters of the US, a description of measures taken to comply with the criteria of the NWP, and a reclamation plan (for aggregate mining activities in isolated waters and non-tidal wetlands adjacent to headwaters and any hard rock/mineral mining activities).

(17) For activities that may adversely affect Federally-listed endangered or threatened species, the PCN must include the name(s) of those endangered or threatened species that may be affected by the proposed work or utilize the designated critical habitat that may be affected by the proposed work.

(18) For activities that may affect historic properties listed in, or eligible for listing in, the National Register of Historic Places, the PCN

must state which historic property may be affected by the proposed work or include vicinity map indicating the location of the historic property.

(c) Form of Notification: The standard individual permit application form (Form ENG 4345) may be used as the notification but must clearly indicate that it is a PCN and must include all of the information required in (b) (1)-(19) of General Condition 13. A letter containing the requisite information may also be used.

(d) District Engineer's Decision: In reviewing the PCN for the proposed activity, the District Engineer will determine whether the activity authorized by the NWP will result in more than minimal individual or cumulative adverse environmental effects or may be contrary to the public interest. The prospective permittee may, optionally, submit a proposed mitigation plan with the PCN to expedite the process and the District Engineer will consider any proposed compensatory mitigation the applicant has included in the proposal in determining whether the net adverse environmental effects to the aquatic environment of the proposed work are minimal. If the District Engineer determines that the activity complies with the terms and conditions of the NWP and that the adverse effects on the aquatic environment are minimal, the District Engineer will notify the permittee and include any conditions the District Engineer deems necessary. Any compensatory mitigation proposal must be approved by the District Engineer prior to commencing work. If the prospective permittee is required to submit a compensatory mitigation proposal with the PCN, the proposal may be either conceptual or detailed. If the prospective permittee elects to submit a compensatory mitigation plan with the PCN, the District Engineer will expeditiously review the proposed compensatory mitigation plan. The District Engineer must review the plan within 45 days of receiving a complete PCN and determine whether the conceptual or specific proposed mitigation would ensure no more than minimal adverse effects on the aquatic environment. If the net adverse effects of the project on the aquatic environment (after consideration of the compensatory mitigation proposal) are determined by the District Engineer to be minimal, the District Engineer will provide a timely written response to the applicant stating that the project can proceed under the terms and conditions of the nationwide permit. If the District Engineer determines that the adverse effects of the proposed work are more than minimal; then he will notify the applicant either: (1) That the project does not qualify for authorization under the NWP and instruct the applicant on the procedures to seek authorization under an individual permit; (2) that the project is authorized under the NWP subject to the applicant's submission of a mitigation proposal that would reduce the adverse effects on the aquatic environment to the minimal level; or (3) that the project is authorized under the NWP with specific modifications or conditions. Where the District Engineer determines that mitigation is required in order to ensure no more than minimal adverse effects on the aquatic environment, the activity will be authorized within the 45-day PCN period, including the necessary conceptual or specific mitigation or a requirement that the applicant submit a mitigation proposal that would reduce the adverse effects on the aquatic environment to the minimal level. When conceptual mitigation is included, or a mitigation plan is required under item (2) above, no work in waters of the US will occur until the District Engineer has approved a specific mitigation plan.

(e) Agency Coordination: The District Engineer will consider any comments from Federal and State agencies concerning the proposed

activity's compliance with the terms and conditions of the NWPs and the need for mitigation to reduce the project's adverse effects on the aquatic environment to a minimal level.

For activities requiring notification to the District Engineer that result in the loss of greater than 1/2 acre of waters of the US, the District Engineer will, upon receipt of a notification, provide immediately (e.g., via facsimile transmission, overnight mail, or other expeditious manner), a copy to the appropriate offices of the Fish and Wildlife Service, State natural resource or water quality agency, EPA, State Historic Preservation Officer (SHPO), and, if appropriate, the National Marine Fisheries Service. With the exception of NWP 37, these agencies will then have 10 calendar days from the date the material is transmitted to telephone or fax the District Engineer notice that they intend to provide substantive, site-specific comments. If so contacted by an agency, the District Engineer will wait an additional 15 calendar days before making a decision on the notification. The District Engineer will fully consider agency comments received within the specified time frame, but will provide no response to the resource agency, except as provided below. The District Engineer will indicate in the administrative record associated with each notification that the resource agencies' concerns were considered. As required by Section 305(b)(4)(B) of the Magnuson-Stevens Fishery Conservation and Management Act, the District Engineer will provide a response to National Marine Fisheries Service within 30 days of receipt of any Essential Fish Habitat conservation recommendations. Applicants are encouraged to provide the Corps multiple copies of notifications to expedite agency notification.

(f) Wetlands Delineations: Wetland delineations must be prepared in accordance with the current method required by the Corps. For NWP 29 see paragraph (b)(9)(iii) for parcels less than 1/4 acre in size. The permittee may ask the Corps to delineate the special aquatic site. There may be some delay if the Corps does the delineation. Furthermore, the 45-day period will not start until the wetland delineation has been completed and submitted to the Corps, where appropriate.

14. Compliance Certification. Every permittee who has received a nationwide permit verification from the Corps will submit a signed certification regarding the completed work and any required mitigation. The certification will be forwarded by the Corps with the authorization letter. The certification will include: (a) A statement that the authorized work was done in accordance with the Corps authorization, including any general or specific conditions; (b) A statement that any required mitigation was completed in accordance with the permit conditions; and (c) The signature of the permittee certifying the completion of the work and mitigation.

15. Use of Multiple Nationwide Permits. The use of more than one NWP for a single and complete project is prohibited, except when the acreage loss of waters of the US authorized by the NWPs does not exceed the acreage limit of the NWP with the highest specified acreage limit. For example, if a road crossing over tidal waters is constructed under NWP 14, with associated bank stabilization authorized by NWP 13, the maximum acreage loss of waters of the US for the total project cannot exceed 1/3 acre.

16. Water Supply Intakes. No activity, including structures and work in

navigable waters of the US or discharges of dredged or fill material, may occur in the proximity of a public water supply intake except where the activity is for repair of the public water supply intake structures or adjacent bank stabilization.

17. Shellfish Beds. No activity, including structures and work in navigable waters of the US or discharges of dredged or fill material, may occur in areas of concentrated shellfish populations, unless the activity is directly related to a shellfish harvesting activity authorized by NWP 4.

18. Suitable Material. No activity, including structures and work in navigable waters of the US or discharges of dredged or fill material, may consist of unsuitable material (e.g., trash, debris, car bodies, asphalt, etc.) and material Used for construction or discharged must be free from toxic pollutants in toxic amounts (see Section 307 of the Clean Water Act).

19. Mitigation. The District Engineer will consider the factors discussed below when determining the acceptability of appropriate and practicable mitigation necessary to offset adverse effects on the aquatic environment that are more than minimal.

(a) The project must be designed and constructed to avoid and minimize adverse effects to waters of the US to the maximum extent practicable at the project site (i.e., on site).

(b) Mitigation in all its forms (avoiding, minimizing, rectifying, reducing or compensating) will be required to the extent necessary to ensure that the adverse effects to the aquatic environment are minimal.

(c) Compensatory mitigation at a minimum one-for-one ratio will be required for all wetland impacts requiring a PCN, unless the District Engineer determines in writing that some other form of mitigation would be more environmentally appropriate and provides a project-specific waiver of this requirement. Consistent with National policy, the District Engineer will establish a preference for restoration of wetlands as compensatory mitigation, with preservation used only in exceptional circumstances.

(d) Compensatory mitigation (i.e., replacement or substitution of aquatic resources for those impacted) will not be used to increase the acreage losses allowed by the acreage limits of some of the NWPs. For example, 1/4 -acre of wetlands cannot be created to change a 3/4 -acre loss of wetlands to a 1/2 -acre loss associated with NWP 39 verification. However, 1/2 -acre of created wetlands can be used to reduce the impacts of a 1/2 -acre loss of wetlands to the minimum impact level in order to meet the minimal impact requirement associated with NWPs.

(e) To be practicable, the mitigation must be available and capable of being done considering costs, existing technology, and logistics in light of the overall project purposes. Examples of mitigation that may be appropriate and practicable include, but are not limited to: reducing the size of the project; establishing and maintaining wetland or upland vegetated buffers to protect open waters such as streams; and replacing losses of aquatic resource functions and values by creating, restoring, enhancing, or preserving similar functions and values, preferably in the same watershed.

(f) Compensatory mitigation plans for projects in or near streams or other open waters will normally include a requirement for the establishment, maintenance, and legal protection (e.g., easements, deed restrictions) of vegetated buffers to open waters. In many cases, vegetated buffers will be the only compensatory mitigation required. Vegetated buffers should consist of native species. The width of the vegetated buffers required will address documented water quality or aquatic habitat loss concerns. Normally, the vegetated buffer will be 25 to 50 feet wide on each side of the stream, but the District Engineers may require slightly wider vegetated buffers to address documented water quality or habitat loss concerns. Where both wetlands and open waters exist on the project site, the Corps will determine the

appropriate compensatory mitigation (e.g., stream buffers or wetlands compensation) based on what is best for the aquatic environment on a watershed basis. In cases where vegetated buffers are determined to be the most appropriate form of compensatory mitigation, the District Engineer may waive or reduce the requirement to provide wetland compensatory mitigation for wetland impacts.

(g) Compensatory mitigation proposals submitted with the "notification" may be either conceptual or detailed. If conceptual plans are approved under the verification, then the Corps will condition the verification to require detailed plans be submitted and approved by the Corps prior to construction of the authorized activity in waters of the US.

(h) Permittees may propose the use of mitigation banks, in-lieu fee arrangements or separate activity-specific compensatory mitigation. In all cases that require compensatory mitigation, the mitigation provisions will specify the party responsible for accomplishing and/or complying with the mitigation plan.

20. Spawning Areas. Activities, including structures and work in navigable waters of the US or discharges of dredged or fill material, in spawning areas during spawning seasons must be avoided to the maximum extent practicable. Activities that result in the physical destruction (e.g., excavate, fill, or smother downstream by substantial turbidity) of an important spawning area are not authorized.

21. Management of Water Flows. To the maximum extent practicable, the activity must be designed to maintain preconstruction downstream flow conditions (e.g., location, capacity, and flow rates). Furthermore, the activity must not permanently restrict or impede the passage of normal or expected high flows (unless the primary purpose of the fill is to impound waters) and the structure or discharge of dredged or fill material must withstand expected high flows. The activity must, to the maximum extent practicable, provide for retaining excess flows from the site, provide for maintaining surface flow rates from the site similar to preconstruction conditions, and provide for not increasing water flows from the project site, relocating water, or redirecting water flow beyond preconstruction conditions. Stream channelizing will be reduced to the minimal amount necessary, and the activity must, to the maximum extent practicable, reduce adverse effects such as flooding or erosion downstream and upstream of the project site, unless the activity is part of a larger system designed to manage water flows. In most cases, it will not be a requirement to conduct detailed studies and monitoring of water flow.

This condition is only applicable to projects that have the potential to affect waterflows. While appropriate measures must be taken, it is not necessary to conduct detailed studies to identify such measures or require monitoring to ensure their effectiveness. Normally, the Corps will defer to state and local authorities regarding management of water flow.

22. Adverse Effects From Impoundments. If the activity, including structures and work in navigable waters of the US or discharge of dredged or fill material, creates an impoundment of water, adverse effects on the aquatic system caused by the accelerated passage of water and/or the restriction of its flow shall be minimized to the maximum extent practicable.

23. Waterfowl Breeding Areas. Activities, including structures and work in navigable waters of the US or discharges of dredged or fill material, into breeding areas for migratory waterfowl must be avoided to the maximum extent practicable.

24. Removal of Temporary Fills. Any temporary fills must be removed in their entirety and the affected areas returned to their preexisting

elevation.

25. Designated Critical Resource Waters. Critical resource waters include, NOAA-designated marine sanctuaries, National Estuarine Research Reserves, National Wild and Scenic Rivers, critical habitat for Federally listed threatened and endangered species, coral reefs, State natural heritage sites, and outstanding national resource waters or other waters officially designated by a State as having particular environmental or ecological significance and identified by the District Engineer after notice and opportunity for public comment. The District Engineer may also designate additional critical resource waters after notice and opportunity for comment.

(a) Except as noted below, discharges of dredged or fill material into waters of the US are not authorized by NWPs 7, 12, 14, 16, 17, 21, 29, 31, 35, 39, 40, 42, 43, and 44 for any activity within, or directly affecting, critical resource waters, including wetlands adjacent to such waters. Discharges of dredged or fill materials into waters of the US may be authorized by the above NWPs in National Wild and Scenic Rivers if the activity complies with General Condition 7. Further, such discharges may be authorized in designated critical habitat for Federally listed threatened or endangered species if the activity complies with General Condition 11 and the US Fish and Wildlife Service or the National Marine Fisheries Service has concurred in a determination of compliance with this condition.

(b) For NWPs 3, 8, 10, 13, 15, 18, 19, 22, 23, 25, 27, 28, 30, 33, 34, 36, 37, and 38, notification is required in accordance with General Condition 13, for any activity proposed in the designated critical resource waters including wetlands adjacent to those waters. The District Engineer may authorize activities under these NWPs only after he determines that the impacts to the critical resource waters will be no more than minimal.

26. Fills Within 100-Year Floodplains. For purposes of this General Condition, 100-year floodplains will be identified through the existing Federal Emergency Management Agency's (FEMA) Flood Insurance Rate Maps or FEMA-approved local floodplain maps.

(a) *Discharges in Floodplain; Below Headwaters.* Discharges of dredged or fill material into waters of the US within the mapped 100-year floodplain, below headwaters (i.e. five cfs), resulting in permanent above-grade fills, are not authorized by NWPs 39, 40, 42, 43, and 44.

(b) *Discharges in Floodway; Above Headwaters.* Discharges of dredged or fill material into waters of the US within the FEMA or locally mapped floodway, resulting in permanent above-grade fills, are not authorized by NWPs 39, 40, 42, and 44.

(c) The permittee must comply with any applicable FEMA-approved state or local floodplain management requirements.

27. Construction Period. For activities the Corps has not verified that and the project were commenced or under contract to commence by the expiration date of the NWP (or modification or revocation date), the work must be completed within 12- months after such date (including any modification that affects the project).

For activities that have been verified and the project was commenced or under contract to commence within the verification period, the work must be completed by the date determined by the Corps.

For projects that have been verified by the Corps, an extension of a Corps approved completion date maybe requested. This request must be submitted at least one month before the previously approved completion date.

D. Further Information

1. District engineers have authority to determine if an activity complies with the terms and conditions of an NWP.

2. NWPs do not obviate the need to obtain other Federal, State, or local permits, approvals, or authorizations required by law.

3. NWPs do not grant any property rights or exclusive privileges.

4. NWPs do not authorize any injury to the property or rights of others.

5. NWPs do not authorize interference with any existing or proposed Federal project.

Section 10 Special Condition: The permittee understands and agrees that, if future operations by the US require the removal, relocation, or other alteration, of the structure or work herein authorized, or if, in the opinion of the Secretary of the Army or its authorized representative, said structure or work shall cause unreasonable obstruction to the free navigation of the navigable waters, the permittee will be required, upon due notice from the Corps of Engineers, to remove, relocate, or alter the structure work or obstructions caused thereby, without expense to the US. No claim shall be made against the US on account of any such removal or alteration.

DEFINITIONS

Best management practices: Best Management Practices (BMPs) are policies, practices, procedures, or structures implemented to mitigate the adverse environmental effects on surface water quality resulting from development. BMPs are categorized as structural or non-structural. A BMP policy may affect the limits on a development.

Compensatory mitigation: For purposes of Section 10/404, compensatory mitigation is the restoration, creation, enhancement, or in exceptional circumstances, preservation of wetlands and/or other aquatic resources for the purpose of compensating for unavoidable adverse impacts, which remain, after all appropriate and practicable avoidance and minimization has been achieved.

Creation: The establishment of a wetland or other aquatic resource where one did not formerly exist.

Enhancement: Activities conducted in existing wetlands or other aquatic resources, which increase one or more aquatic functions.

Ephemeral stream: An ephemeral stream has flowing water only during, and for a short duration after, precipitation events in a typical year. Ephemeral streambeds are located above the water table year-round. Groundwater is not a source of water for the stream. Runoff from rainfall is the primary source of water for stream flow.

Farm tract: A unit of contiguous land under one ownership which is operated as a farm or part of a farm.

Flood Fringe: That portion of the 100-year floodplain outside of the floodway (often referred to as "floodway fringe.")

Floodway: The area regulated by Federal, state, or local requirements to provide for the discharge of the base flood so the cumulative increase in water surface elevation is no more than a designated amount (not to exceed one foot as set by the National Flood Insurance Program) within the 100-year floodplain.

Independent utility: A test to determine what constitutes a single and complete project in the Corps regulatory program. A project is considered to have independent utility if it would be constructed absent the construction of other projects in the project area. Portions of

a multi-phase project that depend upon other phases of the project do not have independent utility. Phases of a project that would be constructed even if the other phases are not built can be considered as separate single and complete projects with independent utility.

Intermittent stream: An intermittent stream has flowing water during certain times of the year, when groundwater provides water for stream flow. During dry periods, intermittent streams may not have flowing water. Runoff from rainfall is a supplemental source of water for stream flow.

Loss of waters of the US: Waters of the US that include the filled area and other waters that are permanently adversely affected by flooding, excavation, or drainage because of the regulated activity. Permanent adverse effects include permanent above-grade, at-grade, or below-grade fills that change an aquatic area to dry land, increase the bottom elevation of a waterbody, or change the use of a waterbody. The acreage of loss of waters of the US is the threshold measurement of the impact to existing waters for determining whether a project may qualify for an NWP; it is not a net threshold that is calculated after considering compensatory mitigation that may be used to offset losses of aquatic functions and values. The loss of stream bed includes the linear feet of stream bed that is filled or excavated. Waters of the US temporarily filled, flooded, excavated, or drained, but restored to preconstruction contours and elevations after construction, are not included in the measurement of loss of waters of the US. Impacts to ephemeral waters are only not included in the acreage or linear foot measurements of loss of waters of the US or loss of stream bed, for the purpose of determining compliance with the threshold limits of the NWPs.

Non-tidal wetland: A non-tidal wetland is a wetland (i.e., a water of the US) that is not subject to the ebb and flow of tidal waters. The definition of a wetland can be found at 33 CFR 328.3(b). Non-tidal wetlands contiguous to tidal waters are located landward of the high tide line (i.e., the spring high tide line).

Open water: An area that, during a year with normal patterns of precipitation, has standing or flowing water for sufficient duration to establish an ordinary high water mark. Aquatic vegetation within the area of standing or flowing water is either non-emergent, sparse, or absent. Vegetated shallows are considered to be open waters. The term 'open water' includes rivers, streams, lakes, and ponds. For the purposes of the NWPs, this term does not include ephemeral waters.

Perennial stream: A perennial stream has flowing water year-round during a typical year. The water table is located above the streambed for most of the year. Groundwater is the primary source of water for stream flow. Runoff from rainfall is a supplemental source of water for stream flow.

Permanent above-grade fill: A discharge of dredged or fill material into waters of the US, including wetlands, that results in a substantial increase in ground elevation and permanently converts part or all of the waterbody to dry land. Structural fills authorized by NWPs 3, 25, 36, etc. are not included.

Preservation: The protection of ecologically important wetlands or other aquatic resources in perpetuity through the implementation of appropriate legal and physical mechanisms. Preservation may include protection of upland areas adjacent to wetlands as necessary to ensure protection and/or enhancement of the overall aquatic ecosystem.

Restoration: Re-establishment of wetland and/or other aquatic resource characteristics and function(s) at a site where they have ceased to exist, or exist in a substantially degraded state

Riffle and pool complex: Riffle and pool complexes are

special aquatic sites under the 404(b)(1) Guidelines. Riffle and pool complexes sometimes characterize steep gradient sections of streams. Such stream sections are recognizable by their hydraulic characteristics. The rapid movement of water over a coarse substrate in riffles results in a rough flow, turbulent surface, and high dissolved oxygen levels in the water. Pools are deeper areas associated with riffles. Pools are characterized by a slower stream velocity, a streaming flow, a smooth surface, and a finer substrate.

Single and complete project: The term 'single and complete project' is defined at 33 CFR 330.2(i) as the total project proposed or accomplished by one owner/developer or partnership or other association of owners/developers (see definition of independent utility). For linear projects, the 'single and complete project' (i.e., a single and complete crossing) will apply to each crossing of a separate water of the US (i.e., a single waterbody) at that location. An exception is for linear projects crossing a single waterbody several times at separate and distant locations: each crossing is considered a single and complete project. However, individual channels in a braided stream or river, or individual arms of a large, irregularly shaped wetland or lake, etc., are not separate waterbodies.

Stormwater management: Stormwater management is the mechanism for controlling stormwater runoff for the purposes of reducing downstream erosion, water quality degradation, and flooding and mitigating the adverse effects of changes in land use on the aquatic environment.

Stormwater management facilities: Stormwater management facilities are those facilities, including but not limited to, stormwater retention and detention ponds and BMPs, which retain water for a period of time to control runoff and/or improve the quality (i.e., by reducing the concentration of nutrients, sediments, hazardous substances and other pollutants) of stormwater runoff.

Streambed: The substrate of the stream channel between the ordinary high water marks. The substrate may be bedrock or inorganic particles that range in size from clay to boulders. Wetlands contiguous to the streambed, but outside of the ordinary high water marks, are not considered part of the streambed.

Stream channelization: The manipulation of a stream channel to increase the rate of water flow through the stream channel. Manipulation may include deepening, widening, straightening, armoring, or other activities that change the stream cross-section or other aspects of stream channel geometry to increase the rate of water flow through the stream channel. A channelized stream remains a water of the US, despite the modifications to increase the rate of water flow.

Tidal wetland: A tidal wetland is a wetland (i.e., a water of the US) that is inundated by tidal waters. The definitions of a wetland and tidal waters can be found at 33 CFR 328.3(b) and 33 CFR 328.3(f), respectively. Tidal waters rise and fall in a predictable and measurable rhythm or cycle due to the gravitational pulls of the moon and sun. Tidal waters end where the rise and fall of the water surface can no longer be practically measured in a predictable rhythm due to masking by other waters, wind, or other effects. Tidal wetlands are located channelward of the high tide line (i.e., spring high tide line) and are inundated by tidal waters two times per lunar month, during spring high tides.

Vegetated buffer: A vegetated upland or wetland area next to rivers, streams, lakes, or other open waters, which separates the

open water from developed areas, including agricultural land. Vegetated buffers provide a variety of aquatic habitat functions and values (e.g., aquatic habitat for fish and other aquatic organisms, moderation of water temperature changes, and detritus for aquatic food webs) and help improve or maintain local water quality. A vegetated buffer can be established by maintaining an existing vegetated area or planting native trees, shrubs, and herbaceous plants on land next to open waters. Mowed lawns are not considered vegetated buffers because they provide little or no aquatic habitat functions and values. The establishment and maintenance of vegetated buffers is a method of compensatory mitigation that can be used in conjunction with the restoration, creation, enhancement, or preservation of aquatic habitats to ensure that activities authorized by NWP's result in minimal adverse effects to the aquatic environment. (See General Condition 19.)

Vegetated shallow: Vegetated shallows are special aquatic sites under the 404(b)(1) Guidelines. They are areas that are permanently inundated and under normal circumstances have rooted aquatic vegetation, such as seagrasses in marine and estuarine systems and a variety of vascular rooted plants in freshwater systems.

Waterbody: A waterbody is any area that in a normal year has water flowing or standing above ground to the extent that evidence of an ordinary high water mark is established. Wetlands contiguous to the waterbody are considered part of the waterbody.

DIAMOND GRINDING AND SURFACE TESTING BRIDGE SECTIONS

Effective December 6, 2004

Description. This work shall consist of diamond grinding and surface testing bridge sections.

A bridge section shall consist of the bridge deck plus the bridge approach pavement and connector pavement on each side of the bridge.

Equipment. Equipment shall be according to the following.

- (a) Diamond Grinder. The diamond grinder shall be a self-propelled planing machine specifically designed for diamond saw grinding. It shall be capable of accurately and automatically establishing the profile grade and shall have a positive means for controlling cross slope. It shall also have an effective means for removing excess material and slurry from the surface and for preventing dust from escaping into the air. The diamond grinder shall not cause strain or damage to the surface.

The grinding head shall be a minimum of 1.2 m (4 ft) wide and the diamond saw blades shall be gang mounted on the grinding head at a rate of 50 blades / 300 mm (1 ft).

- (b) Surface Testing Equipment. The surface testing equipment shall be a California Profilograph or an approved equivalent. The equipment shall consist of an 8 m (25 ft) long frame supported upon multiple wheels at each end, a recording wheel located midway between, and either a mechanical or computerized recorder. Data filters for an automated California Profilograph shall be set according to the parameters outlined in California Test 526, except the Blanking Band shall be set to 0.0 mm (0.00 inch). If the profilograph has a mechanical recorder, an electronic scanner, a computer, and software to reduce the trace shall also be provided. All analysis equipment (electronic scanner, computerized recorder, etc.) shall be able to accept 0.0 mm (0.00 in.) for the blanking band.

The Contractor shall demonstrate to the Engineer that the testing equipment has proper tire pressure inflation, trueness of tire travel, and is calibrated for horizontal distance and vertical displacement.

Horizontal distance calibration shall consist of pushing the profilograph, at walking speed [approximately 5 km/hr (3 mph)], over a pre-measured test section and determining the chart scale factor. To calculate the chart scale factor, divide the pre-measured test distance, in millimeters (inches), by the length of the profile trace from this test section, in millimeters (inches). This factor should be 300 ± 0.5 . If the profilograph produces charts with a different scale factor, it shall be adjusted and recalibrated.

Vertical displacement calibration shall consist of placing the center recording wheel of the profilograph on a base plate and recording the base elevation. Two plates, 13 mm (0.5 in.) thick each, are added under the center wheel, one at a time, and the change in elevation noted. The two plates are removed, one at a time, and the change in elevation

noted. Each step in the process shall show a change in height of $13 \text{ mm} \pm 1.0 \text{ mm}$ ($0.5 \pm 0.01 \text{ in.}$). If the profilograph produces results outside the above limits, it shall be adjusted and recalibrated.

Equipment having a computerized recorder shall be checked by comparing the results from the automatic trace reduction to the results obtained through manual trace reduction using California Test Method 526 with a 0.0 mm (0.00 in.) blanking band. The comparison shall be made using the trace obtained on a pre-measured test section and the two trace reductions shall compare within 30 mm/km (2.0 in./mile).

All calibration traces and calculations shall be submitted to the Engineer to become part of the project file. The Department reserves the right to retest the surface testing equipment at any time to verify the accuracy.

CONSTRUCTION REQUIREMENTS

General. After all components have been properly cured, the bridge section shall be ground over its entire length and over a width that extends to within 600 mm (2 ft) of the curbs or parapets. The maximum thickness removed shall be 6 mm ($1/4 \text{ in.}$); however, when the minimum bridge deck thickness of 190 mm (7.5 in.) can be maintained additional removal thickness may be permitted.

The vertical difference between longitudinal passes shall be 3 mm ($1/8 \text{ in.}$) maximum. The grinding at the ends of the bridge section shall be diminished uniformly at a rate of 1:240 over the connector pavements.

Grinding shall be continuous through all joints. When sealed joints are specified, grinding shall be completed prior to final installation of the joints seals. During grinding, joint openings shall be temporarily filled with material approved by the Engineer.

Surface Testing. The diamond ground bridge section shall be surface tested in the presence of the Engineer prior to opening to traffic. All objects and debris shall be removed from the surface prior to testing. During surface testing, joint openings may be temporarily filled with material approved by the Engineer.

Profiles shall be taken in the wheel paths of each lane, 1 m (3 ft.) from and parallel to the planned lane lines. A guide shall be used to maintain the required distance.

The profile trace shall be printed on continuous paper with scales of 300:1 horizontally and 1:1 vertically and shall have stationing indicated every 150 m (500 ft.) at a minimum. Both ends of the profile trace shall be labeled with the following information: contract number, beginning and ending stationing, which direction is up on the trace, which direction the profilograph was pushed, and profilograph operator name(s). The top portion of the Profilograph Report of Bridge Smoothness (Attachment 1) shall be completed and the form secured around the trace roll.

Trace Reduction and Bump Locating Procedure. Traces shall be reduced using a 0.0 mm (0.00 in.) blanking band to determine the profile index [mm/km (in./mile)] for the bridge section. Traces produced by a mechanical recorder shall be reduced using an electronic scanner and computer software. This software shall calculate the profile index and indicate any bumps in excess of 8 mm (0.30 in.) with a line intersecting the profile on the printout. Computerized recorders shall provide the same information.

The average profile index and locations with deviations exceeding the 8 mm (0.30 in.) limit shall be recorded on the Profilograph Report of Bridge Smoothness as shown in Attachment 1.

All traces and completed reports shall be provided to the Engineer for the project file.

Corrective Actions. Within the bridge section, all deviations in excess of 8 mm (0.30 in.) in a length of 8 m (25 ft.) or less shall be corrected regardless of the profile index value. Correction of deviations shall not result in the deck thickness being less than the minimum.

Any bridge section having an average profile index greater than 555 mm (35.0 in./mile), including bumps, shall be corrected to reduce the profile index to 555 mm/km (35.0 in./mile) or less on each trace.

Where corrective work is performed, the bridge section shall be retested to verify that corrections have produced a profile index of 555 mm/km (35.0 in./mile) or less for each trace.

Corrective actions shall be performed at no additional cost to the department. The Contractor shall furnish the surface profilograph tracing and the completed form to the Engineer within two working days after any corrections are made.

The Engineer may perform profilograph testing on the surface at any time for monitoring and comparison purposes.

Smoothness Assessments. Smoothness assessments will be based on the final average profile index determined for the bridge section after performing any corrective work. Additional payments/deductions will be as indicated in the Smoothness Assessment Schedule.

The Smoothness Assessment Work Sheet (Attachment 2) will be completed by the Engineer for payment.

SMOOTHNESS ASSESSMENT SCHEDULE

Profile Index mm/km (in./mile) per Bridge Section	Smoothness Assessment per Bridge Section
240 (15.0) or less	+\$7,500.00
>240 (15.0) to 285 (18.0)	+\$5,000.00
>285 (18.0) to 315 (20.0)	+\$2,500.00
>315 (20.0) to 555 (35.0)	+\$0.00
>555 (35.0) to 710 (45.0)	+\$0.00
>710 (45.0)	-\$5,000.00

Method of Measurement. This work will be measured for payment in place and the area computed in square meters (square yards) of diamond grinding performed.

Basis of Payment. This work will be paid for at the contract unit price per square meter (square yard) for DIAMOND GRINDING (BRIDGE SECTION).

INSTRUCTIONS FOR COMPLETING PROFILOGRAPH REPORT OF BRIDGE SMOOTHNESS

This form shall be prepared and submitted, along with the profile trace, to the Engineer.

The Type of Report is one of the following:

Information – Test conducted for informational purposes only.

Initial – Testing of bridge section prior to any corrective action.

Intermediate – After some corrective action has been completed.

Final – After all corrective action has been completed.

Other Information:

Structure Number – Numerical identification of the bridge.

Traffic Direction – NB, SB, EB, or WB depending on the design traffic flow of the numbered route.

Lane Designation – DL (Driving Lane), CL (Center Lane), or PL (Passing Lane).

Operator – Printed name of Contractor personnel operating profilograph.

Engineer – Printed name of Department representative witnessing data collection.

Bump locations are listed by station for each track (wheel path).

EXAMPLE

PROFILOGRAPH REPORT FOR BRIDGE SMOOTHNESS

Type of Report:

Information Initial Intermediate Final

Contract No. 96739

Route IL 255

Contractor John Doe Construction Co.

Section No. _____

Station 1795+06.0

County Madison

No. of Lanes 2

Structure Number 060-1234

Operator Joe Smith

Traffic Direction EB

Engineer Mike Jones

Date Tested 09/02/99

Section No.	Length km (mile)	Track 1 Measured Roughness mm (in.)	Track 1 Profile Index mm/km (in./mile)	Track 2 Measured Roughness mm (in.)	Track 2 Profile Index mm/km (in./mile)	Average Profile Index mm/km (in./mile)
1	0.100	2.16	21.6	1.30	13.0	17.3
2	0.100	2.18	21.8	2.26	22.6	22.2

Bump Locations: Track 1: 1893+53.5

Certified by: _____

Title: Chief Profilograph Pusher

Organization: John Doe Construction Co.

LRFD Piling

Effective: September 27, 2004
 Revised: November 23, 2004

Section 512 from the IDOT Standard Specifications for Road and Bridge Construction, Adopted January 1, 2002 and all Supplemental Specifications and Recurring Special Provisions pertaining to Section 512 shall be replaced with the following:

SECTION 512. PILING

512.01 Description. This work shall consist of the furnishing, driving, building up and cutting off of timber, precast concrete, metal shell cast-in-place concrete with or without reinforcement bars and steel piles.

512.02 Materials. Materials shall meet the requirements of the following Articles of Section 1000 - Materials:

Item	Article/Section
(a) Timber Piling	1007.08
(b) Preservative Treatment	1007.12
(c) Portland Cement Concrete	1020
(d) Reinforcement Bars and Fabric	1006.10
(e) Structural Steel	1006.04
(f) Paint Materials and Mixed Paints	1008.01 - 1008.23
(g) Prestressing Steel Strand	1006.10
(h) Metal Shell and Sheet Piling	1006.05

CONSTRUCTION REQUIREMENTS

512.03 Manufacture of Precast and Precast, Prestressed Concrete Piles. Precast, and precast, prestressed piles shall be constructed according to the requirements of Section 504, except as specified.

- (a) **Precast Concrete Piles.** Precast concrete piles may be driven when the tests show that the concrete has attained a compressive strength of not less than 31,000 kPa (4,500 psi), or a flexural strength of not less than 5,200 kPa (750 psi), but not less than seven days from date of casting.

After removal of the side forms, the entire pile shall be supported for at least seven days from the time of casting, unless the concrete has attained the strength specified in a shorter period. In no case shall the piles be subjected to any handling stresses until the concrete has attained a flexural strength of at least 4,500 kPa (650 psi) or 24,000 kPa (3,500 psi) compressive strength.

Each pile shall be cured according to Article 1020.13 until the concrete has attained the strength required at the time of driving, but for a period of not less than seven days from the date of casting, except as stated below. Steam curing also will be permitted, provided that the method and its details meet the approval of the Engineer. During cold weather construction and when steam curing is not used, the concrete shall be protected according to Article 1020.13(e). The curing and protection shall begin as soon as each group of piles has been cast. However, if the forms are to be removed on the day following the casting of the piles, the application of the protective covering may be deferred until the forms are removed unless the gain in strength will be unduly retarded thereby. Permission for removal of the protective covering after it has been applied, for the purpose of removing the forms, may be granted by the Engineer if this does not result in undue cooling of the concrete, but the covering shall be replaced after the shortest possible interval of time.

The maximum allowable deviation of the longitudinal axis from a straight line drawn from the center of the tip to the center of the butt shall not exceed 5 mm (1/4 in.) per 6.5 m (25 ft) of length of the pile.

- (b) Precast, Prestressed Concrete Piles. Precast, prestressed concrete piles shall not be driven until the concrete has attained a compressive strength of not less than 35,000 kPa (5,000 psi), but in no case less than three days from the date of casting.

The prestressing strand shall have a minimum breaking strength for 11 mm (7/16 in.) strand of 138 kN (31,000 lb) and a minimum load at one percent extension of 117 kN (26,350 lb) with an initial load of 14 kN (3,100 lb). The prestressing load applied to the strand shall be 96.5 kN (21,700 lb).

For 12.7 mm (1/2 in.) strand, the prestressing strand shall have a minimum breaking strength of 184 kN (41,300 lb) and a minimum load of 18 kN (4,130 lb). The prestressing load applied to the strand shall be 128 kN (28,900 lb).

Each reel of strand and all samples furnished to the Engineer for testing shall bear a tag identifying the strand as extra high-strength.

Each end of the piles shall have extra reinforcement as shown on the plans. All prestressing strands shall be ground flush with each end of the pile. The piles shall be constructed to a tolerance of 0 to +12 mm (+1/2 in.) of the cross sectional dimensions shown on the plans. The tolerance from a straight line along the longitudinal axis shall be the same as specified for precast concrete piles.

- (c) Extensions or "Build-ups". Extensions, splices or "build-ups" on precast or precast, prestressed concrete piles, shall be avoided wherever possible; but when necessary, they shall be made as follows:

After driving is completed, the concrete at the end of the pile shall be cut away, leaving the reinforcement exposed for a length of 30 diameters of the bars for precast concrete piles and the prestressing strand exposed for a minimum length of 600 mm (24 in.) for precast, prestressed concrete piles. The final cut shall be perpendicular to the axis of the pile. Reinforcement similar to that used in the pile shall be lapped 30 diameters and fastened to the projecting steel for precast concrete piles. Reinforcement as shown on the plans shall be lapped a minimum of 600 mm (24 in.) with the projecting prestressing strands for precast, prestressed concrete piles. In placing the form work for the extension, care shall be taken to avoid leakage along the pile. Prior to placing the concrete, the top of the pile shall be thoroughly wetted and covered with a thin coating of 1:2 cement mortar.

512.04 Metal Shell Cast-in-Place Concrete Piles. Metal shell cast-in-place concrete piles shall consist of concrete encased in a steel shell which is left in place.

- (a) Metal Shells. The walls of all shells shall be of sufficient thickness, but not less than the minimum specified, to permit driving with the pile hammer selected without distortion or damage. Metal shells may be spliced provided that the minimum length of each segment is 3 m (10 ft) and a maximum of three shop or field splices are in any single pile for the authorized furnished length. Splices shall be complete joint penetration (CJP) welds except commercial splicer may be used, per the manufacturer's requirements, when the splice occurs within or below the footing. Welder qualification and certification will be required for all splicing according to Article 512.07.
- (b) Inspection of Shells After Driving. The Contractor shall have available at all times a suitable light, of a type approved by the Engineer, for illuminating the interior of pile shells for their

entire lengths after being driven. Any shell that is not watertight or that shows bends, kinks, or other deformations during the process of driving, that would impair the strength or efficiency of the completed pile, shall be either removed and replaced, or repaired by the Contractor, in a manner satisfactory to the Engineer. The Contractor will not be reimbursed for any such shells ordered removed or replaced by the Engineer. If the shells are not filled with concrete shortly after being driven, the tops of the shells shall be sealed temporarily to prevent the entrance of water or foreign substance.

- (c) Reinforcement. Reinforcement shall be used for the concrete inside the shells when so provided by the plans. Such reinforcement shall be of the unit type, rigidly fastened together and lowered into the shell before the concrete is placed. Spurs or spacers shall be used to ensure the specified clearance for the bars.
- (d) Filling Shells with Concrete. After the metal shells have been driven, cut off and approved, and any reinforcement required has been placed in position, the shell shall be filled with Class SI Concrete conforming to Section 1020, except that the minimum slump shall be 175 ± 25 mm (7 ± 1 in.). The top 3 m (10 ft) of concrete in the pile shall be consolidated by internal vibration.

The shells shall be given a final inspection before they are filled with concrete and any water or foreign substance found in them shall be removed. Whenever practicable, all the piles for any one bent, pier or abutment shall have been completely driven before any concrete is placed in the shells. If this is impracticable, driving of remaining piles within 4.5 m (15 ft) shall be deferred until the concrete in all shells which have been filled has been in place for not less than 24 hours from the time placing is completed. The concrete shall be protected against low temperatures as required in Article 1020.13.

512.05 Steel Piles.

- (a) Description. Steel piles shall consist of structural steel shapes of the sections indicated on the plans or otherwise authorized by the Engineer.
- (b) Splices and Caps. Splices will be allowed when shown on the plans. No more than one pre-planned field or shop splice will be allowed in any 12 m (40 ft) length of pile and no spliced length less than 8 m (25 ft) will be allowed. Splices shall develop the full structural capacity of the net cross section area of the pile. Splicing shall be accomplished by Complete Joint Penetration (CJP) welding of the entire cross-section, by the Department's standard steel pile field splice, or by the use of an approved commercial splicer. Welder qualification and certification will be required for all splices according to Article 512.07. If steel caps are required by the plans, the piles shall be cut off evenly prior to placing the caps.
- (c) Field Connections for Trestle Bents. Connections of caps and bracing members shall be made by machine bolts or by welding according to the details shown on the plans. When piles are not driven sufficiently exact to line up the faces of pile flanges with bracing members, fills or shims shall be furnished and placed by the Contractor to secure proper alignment of the bracing. The weight of such fills and shims will not be included in the weight of any structural steel for which the Contractor is to be paid.
- (d) Painting. Before being driven or placed, all steel piles, caps, splices and bracing members in trestle bents shall be shop painted with inorganic zinc rich primer. When specified, after the piles are driven and all bracing members, concrete caps and encasement are in place, all exposed steel shall be given one complete coat of field paint. All painting shall conform to Section 506. Foundation piles shall not be painted.
- (e) Metal Shoes. When specified, steel H-piles shall be fitted with pile points of the design specified.

The pile points shall be cast in one piece steel conforming to ASTM A 27M (A 27) (Grade 65-35). They shall have sufficient flange and continuous web vertical back-ups to assure proper alignment and fitting to the pile. They shall provide full bearing for the piles and shall be fastened to the piles using 8 mm (5/16 in.) continuous fillet weld along the flange contact areas. The soil or rock bearing surfaces of the points shall be sloped downward toward the web a minimum of 15° but not to exceed 30° to the horizontal under the flanges. The sloped surfaces of the points shall terminate in a manner to form a flat surface not exceeding one fourth of the flange width. These surfaces may have individual or continuous cutting teeth. The minimum mass (weight) of the pile points shall be according to the following schedule:

<u>Pile Size</u>	<u>Min. Mass of Point- Kg. (lb)</u>
HP 200 (HP 8)	7.0 (15)
HP 250 (HP 10)	10.0 (22)
HP 310 (HP 12)	13.0 (30)
HP 360 (HP 14)	20.0 (46)

512.06 Splicing Timber Piles. Where possible, full length piles shall be used. No splices may be made without the permission of the Engineer. When splices are permitted, they shall be of the butt joint type and the added piece shall conform closely in diameter to the main pile at the point of splice. The pile shall be sawed square and the butt joints shall bear evenly over the entire surface. The splices shall be made by the use of at least four steel plates or a metal pipe sleeve. The plates shall be at least 1.2 m (4 ft) long, 90 mm (3 1/2 in.) wide and 10 mm (3/8 in.) thick and each plate shall be bolted to the pile with not less than two M20 (3/4 in.) bolts both above and below the joint. Pipe sleeves shall be standard steel pipe, at least 900 mm (3 ft) long and shall be fastened with not less than three M16 (5/8 in.) lag screws, 125 mm (5 in.) long, both above and below the joint. All metal used for splicing creosoted piles shall be painted one coat of a metal protective paint approved by the Engineer. If exposed, the metal shall also be given two coats of field paint of an approved color.

Before the splice is assembled, if the joint is to be above low ground water line, all sawed surfaces and holes in creosoted and untreated piles shall be treated as provided in Article 1007.12(f).

512.07 Welding. Welding shall conform to the applicable requirements of Article 505.04(q), except for the following: welders shall be qualified according to either AWS D1.1 or D1.5 Code, except the macroetch specimen requirement of the "Qualification Test for Fillet Welds Only (Option 1)" are waived. Welding procedures are considered prequalified if consumables in Table 4.1 of the D1.5 Code (BWC) and low hydrogen practices of Section 4 in the BWC are employed. Submittal of weld procedure specifications (WPSs) for the Engineer's approval is not required, but the welder must have written WPSs for the procedures employed, showing consumables, variables (amps, volts, etc. as appropriate), joint configuration, surface preparation and preheat. Submerged arc welding (SAW) is not mandatory for CJP welds in flanges and/or webs of H-piles. Non-destructive testing of pile splices will not be required unless visual inspection indicates significant anomalies.

512.08 Storage and Handling of Piles.

- (a) General. The method of storing and handling all piles shall be such as to avoid damage to the piles.
- (b) Creosoted Timber Piles. Creosoted timber piles shall be stored at the site of the work according to Article 1007.12(f) and handled as specified in Articles 507.05 and 1007.12(f).

- (c) Precast and Precast, Prestressed Concrete Piles. Removal of forms, curing, storing, transporting, and handling precast and precast, prestressed concrete piles shall be done in such a manner as to avoid excessive bending stresses, cracking, spalling or other injurious effects. In general, precast concrete piles shall be lifted by suitable devices attached to the pile at not less than two points for piles up to 14 m (45 ft) long, and not less than three points for piles over 14 m (45 ft) long. Precast, prestressed concrete piles shall be lifted by suitable devices and supported during storage or transportation at not less than two points for piles up to 20 m (65 ft) long and not less than three points for piles over 20 m (65 ft) long. The locations of the points of support shall be as shown on the plans.

The piles may be lifted by a bridle attached to the pile or special embedded or attached lifting devices as approved by the Engineer. Unless special lifting devices are attached for lifting, the pickup points shall be plainly marked on all piles before removal from the casting bed and all lifting shall be done at these points. Deviation from the above method of handling will be permitted, subject to the approval of the Engineer. The method of handling precast concrete piles shall not induce stresses in the reinforcement in excess of 80,000 kPa (12,000 psi), allowing 100 percent of the calculated load for impact and shock. The method of handling precast, prestressed concrete piles shall not induce tensile stresses in the concrete in excess of 1,400 kPa (210 psi), allowing 100 percent of the calculated load for impact and shock.

- (d) Steel Piles. The handling and storing of steel piles shall be done according to Article 505.08(c).
- (e) Metal Shell Piles. Metal shell piles shall be stored off the ground with sufficient cribbing to prevent bending or distortion of the pile and to prevent dirt, water, or other foreign material from entering the metal shell.

512.09 Preparation for Driving. Foundation piles shall not be driven until after the excavation for the footings is completed. Any material forced up between the piles shall be removed to the correct elevation before concrete in the foundation is placed. Trestle piles and piles for abutments shall not be driven until any required channel excavation or excavation for backing and bracing is completed, at least at the location of the piles.

- (a) Pointing Timber Piles. When necessary, timber piles shall be pointed for driving. Retreatment of the pointed area will not be required. When specified, the piles shall be shod with metal shoes of a design satisfactory to the Engineer. The points of the piles shall be shaped to secure an even and uniform bearing on the shoes.
- (b) Precast Concrete Piles. If the piles have been allowed to dry after curing, the entire pile shall be saturated at least six hours prior to driving.

512.10 Driving Piles. The equipment for driving piles shall be adequate for driving piles 3 m (10 ft) longer than the longest plan length shown on the plans. The equipment shall be capable of driving the entire length of pile without splicing. The use of a shorter length of equipment or the use of preplanned splices shall meet the approval of the Engineer. The pile hammer shall meet the approval of the Engineer. The equipment and methods for driving piles shall conform to the following requirements:

- (a) Methods of Driving. Piles shall be driven with a gravity, steam, compressed air, or diesel hammer. Hydraulic hammers may be used with written approval of the Engineer. If a hydraulic is allowed, the Contractor shall furnish, at his/ her expense, wave equation analysis and/or a pile driving analyzer to aid in the determination of the adequacy of the hammer and the driven bearing of the pile. The use of jets or other methods of pile driving shall meet the approval of the Engineer. The method of driving shall not result in damage to the pile.
- (b) Caps, Helmets and Driving Heads. The heads of timber piles shall be protected by a cap

during driving. The cap shall consist of a cushion made of wood. The design of the cap shall meet the approval of the Engineer.

The heads of steel piles shall be protected by a cast or structural steel helmet. The helmet shall be capable of holding the axis of the pile in line with the axis of the hammer and prevent damage to the pile during driving.

The heads of metal shell pile shall be protected by a combination driving head and pilot capable of distributing the hammer blow uniformly across the metal shell cross section and maintaining the alignment of the pile.

The heads of precast and precast, concrete piles shall be protected by a cushioned driving head during driving to prevent damage to the pile.

- (c) Precoring Through Embankment or Foundation Soils. When called for on the plans, holes shall be precored for piles which are to be driven through new embankment or dense soils. After the embankment or footing excavation has been constructed, holes shall be drilled at proper locations through the soils to the elevation specified, unless otherwise directed by the Engineer, and the piles shall be driven through these holes. If oversize holes are drilled, the void space outside of the pile shall be filled with dry loose sand.

Test piles may be driven before the embankment is placed, or they may be driven through the precored embankment as herein specified.

The cost of complying with these requirements will not be paid for separately but shall be considered as included in the unit prices bid for the pay items involved.

- (d) Hammers for Timber Piles. Gravity hammers for driving timber piles preferably shall weigh not less than 13.3 kN (3,000 lb), but lighter hammers may be used provided the minimum weight of the hammer is 9 kN (2,000 lb) for a nominal required bearing of 400 kN (45 tons) or less, 11 kN (2,500 lb) for a nominal required bearing of more than 400 kN (45 tons) but not more than 500 kN (55 tons), and 13.3 kN (3,000 lb) for a nominal required bearing of more than 500 kN (55 tons) but not more than 625 kN (70 tons). The nominal required bearing of the piles as stated on the plans shall be used in determining the minimum weight of drop hammer permitted. The fall of the hammer shall be regulated so as to avoid injury to the piles, but shall in no case exceed 6 m (20 ft), and shall be between 4.3 m (14 ft) and 4.8 m (16 ft) at the time that the driven bearing is being determined as specified in Article 512.14(b). The Contractor shall establish the true weight of the hammer used on the work to the satisfaction of the Engineer. Steam, air or diesel hammers used for driving timber piles shall develop an energy of not less than 8,100 J (6,000 ft lb) per blow.
- (e) Hammers for Precast and Precast, Prestressed Concrete Piles. Precast and precast, prestressed concrete piles shall be driven with a steam, air or diesel hammer. The hammer shall develop an energy per blow sufficient to achieve the nominal required bearing with not more than ten nor less than three blows per 25 mm (1 in.) at the final set.
- (f) Hammers for Metal Shell Cast-in-Place Concrete Piles. Pile shells shall be driven with a steam, air or diesel hammer which shall develop an energy per blow sufficient to achieve the nominal required bearing with not more than ten nor less than three blows per 25 mm (1 in.) at the final set.
- (g) Hammers for Steel Piles. Steel piles shall be driven with a steam, air or diesel hammer which shall develop an energy per blow calculated in the following manner:

$$E = 10.17 * P \quad (\text{metric})$$

$$E = \frac{P}{30} \quad (\text{english})$$

Where:

E = energy of the striking parts of the hammer per blow when driven vertically in joules (foot-pounds). For gravity, single acting steam or air hammers, and open type diesel hammers $E = WH$. For double acting steam or air hammers and closed type diesel hammers $E = H(W+Ap)$ where:

W = the force (weight) of striking parts of hammer in kiloNewtons (pounds)

H = the height of fall in millimeters (feet)

A = area of piston in square millimeters (square inches)

p = mean effective steam or air pressure in cylinder of hammer, in kiloNewton per square millimeter (pounds per square inch)

P = Nominal required bearing of piles as specified in the plans in kiloNewtons (pounds).

- (h) Leads. Pile leads shall be used to maintain the alignment of the pile. Leads may be either fixed or swinging. Swinging leads shall be set or toed in the ground prior to the start of driving. The design of the leads shall accommodate the full length of pile, hammer and other required equipment and be capable of maintaining the alignment of the pile during driving within the tolerances specified.
- (i) Followers. The driving of piles with followers shall be done only with the written permission of the Engineer. When followers are used, one pile in every group of ten shall be driven without a follower, by using a longer pile if necessary, and shall be used, in effect, as a test pile to determine the average driven bearing of the group. This pile will be paid for as a permanent pile and not as a "test pile".
- (j) Jets. Water and air jets shall be used when approved by the Engineer. The jets shall have the capacity to erode the material adjacent to the pile. Unless cast inside of concrete piles, the jets shall be free to move along the axis of the pile. The use of jets shall be discontinued before final set is reached. Unless otherwise approved by the Engineer, the piles shall be driven with the hammer for the final 600 mm (2 ft) of penetration after use of the jets has been discontinued.

512.11 Penetration of Piles. All piles shall be driven to a penetration such that the driven bearing, as determined by the formulas in Article 512.14(b), is not less than the nominal required bearing indicated on the plans.

Piles in stream beds or on the banks of streams, where marked erosion is expected, shall be driven to the minimum penetration indicated on the plans or as the Engineer deems necessary as protection against scour.

If, after a test pile is driven through and below a hard stratum, the driven bearing of the test pile drops below the nominal required bearing indicated in the plans, the Engineer may require the Contractor to drive the permanent piles through the hard stratum to a penetration at which the nominal required bearing is again obtained.

Except as required above, and as otherwise required for test piles, the Contractor will not be required to drive any pile to a driven bearing of more than 133 kN (15 tons) in excess of the nominal required bearing indicated in the plans.

The driving of each pile shall be continuous until the pile has attained the nominal required bearing. When production piles fail to achieve the specified nominal required bearing after driving the full furnished lengths, these piles, when approved by the Engineer, can be left for a minimum of 24 hours to allow for soil setup before attempting to splice. After the waiting period has

passed, the Contractor shall redrive one representative pile in each group of such piling to check the gain in driven bearing upon soil setup. The soil setup driven bearing shall be based on the number of redriving blows necessary to drive the pile an additional 75 mm (3 in.) using a hammer that when possible has been warmed up by applying at least 20 blows to another pile. These piles may be accepted without splicing if they exhibit sufficient driven bearing.

512.12 Tolerances in Driving. Foundation piles shall be driven with a variation from the vertical or from the required batter of not more than 20 mm/m (1/4 in./ft). Piles supporting caps or having bracing or backing attached to them shall be driven with sufficient accuracy in position and alignment so that, without injury to the piles by forcing them into correct position after driving, no pile is out of correct position at the base of the cap by more than 50 mm (2 in.) in any direction; or out of alignment by more than 100 mm (4 in.) at the bottom of the backing or bracing, or at the ground line if the latter is lower or if there is no backing or bracing. All piles seriously damaged in driving or driven out of position shall be pulled or cut off, as the Engineer may direct, and shall be replaced satisfactorily by the Contractor at his/her own expense.

512.13 Cutoffs. The tops of all piles shall be cut off perpendicular to the longitudinal axis of the pile at elevations established by the Engineer. Piles which support timber caps or grillages shall be sawed to conform to the plane of the bottom of the superimposed structure. In all cases, the amount of cutoff shall be sufficient to remove any portion of the pile top trimmed for driving or bruised during driving. All debris shall be removed from around the pile heads.

The heads of all creosoted timber piles, when not encased in concrete, shall be given three coats of a hot mixture of 60 percent creosote oil and 40 percent roofing pitch, or given three brush coats of hot creosote oil and covered with roofing pitch. Each pile head shall then be covered with a sheet of galvanized iron, not lighter than 0.701 mm (24 gage) and of sufficient area to project at least 100 mm (4 in.) outside the pile at any point, which shall be bent down over the pile to fit neatly and exclude water in the best possible manner. The edges shall be trimmed neatly and fastened to the pile face with large headed galvanized roofing nails.

The cutoff portions of all piles, including test piles, shall be retained and made available for use in splicing or building up piles if required until the pile driving is complete. Upon completion of the work, the cutoffs shall become the property of the Contractor and shall be disposed of by the Contractor at his/her expense.

512.14 Determination of Driven Bearing. The bearing values will be determined by one of the following methods:

- (a) By Loading Tests. When provided for on the plans or so ordered by the Engineer, the Contractor shall load one or more piles of a group to determine their driven bearing. The pile load test shall be performed according to ASTM D 1143.

For piles driven by methods other than specified in Article 512.10(a), the Contractor will be required to determine the driven bearing of the piles by loading tests as specified.

- (b) By Formulas. If loading tests are not required, the following formulas will be used as a guide to determine the driven bearing for the piles:

$$P' = \frac{E}{2(S + 2.54X)} \quad (\text{metric}) \qquad P' = \frac{6E}{(S + 0.1X)} \quad (\text{english})$$

Where:

P' = Nominal driven bearing of pile in kiloNewtons (pounds).

E = energy of the striking parts of the hammer per blow when driven vertically in joules (foot-pounds). For gravity, single acting steam or air hammers, and open type diesel hammers E = WH. For double acting steam or air hammers and closed type diesel hammers E = H(W+Ap) where:

W = the force (weight) of striking parts of hammer in kiloNewtons (pounds)

H = the height of fall in millimeters (feet)

A = area of piston in square millimeters (square inches)

p = mean effective steam or air pressure in cylinder of hammer, in kiloNewton per square millimeter (pounds per square inch).

S = average penetration, in millimeters (in.) per blow, for five to ten consecutive blows for gravity hammers, or ten to twenty consecutive blows for steam or air hammers and diesel hammers.

X = Hammer and pile correction factor. For precast and precast, prestressed concrete piles X = w/W. For gravity hammers X = 10. For all other piles and hammers X = 1 where:

W = the force (weight) of striking parts of hammer in kiloNewtons (pounds)

w = weight of pile in kilowNewtons (pounds).

For piles driven on a batter, the value of "E" must be multiplied by "U". The value of U being determined as follows:

$$U = \frac{0.25(4 - m)}{(1 + m^2)^{0.5}} \quad (\text{for gravity hammers})$$

$$U = \frac{0.1(10 - m)}{(1 + m^2)^{0.5}} \quad (\text{for steam, air or diesel hammers})$$

where:

U = hammer energy reduction coefficient, less than unity.

m = tangent of the angle of batter (i.e. m = 0.25 = 3/12 for 3H:12V batter).

The Engineer will determine the value of "E", effective energy, of closed type diesel hammers, the effective energy being the energy developed by the compressed air and/or gas in the upper chamber plus the energy developed by the falling ram. All necessary gages and/or instruments shall meet the approval of the Engineer and they shall be furnished and properly installed by the Contractor who shall also furnish the Engineer with the specifications of the hammer that will be used to perform the work. No additional compensation will be allowed the Contractor for furnishing and installing the gages and/or instruments nor for furnishing the hammer specifications.

The preceding formulas for piles driven with a gravity hammer are applicable only when: the hammer has a free fall; the pile head is not broomed, crushed or splintered; there is no appreciable bounce of the hammer after striking the pile; the penetration is at a uniform or uniformly decreasing rate; and the average penetration of five consecutive blows is not less than 25 mm (1 in.) per blow under a free fall of the hammer.

When the penetration of a pile is almost wholly obtained by the use of jets, a hammer being used merely as an aid to force the pile into place, the final 600 mm (2 ft), more or less, of penetration, shall be driven with an impact hammer and the preceding formulas will be used to determine the driven bearing of the pile.

512.15 Test Piles. When required by the plans, the Contractor shall furnish and drive test piles at locations determined by the Engineer. These piles shall be a minimum of 3 m (10 ft) longer than the length of the permanent piles shown on the plans. The Contractor shall drive each test pile to refusal or to a driven bearing 50 percent greater than the nominal required bearing of any pile, the penetration of which is to be determined by the test pile unless otherwise directed by the Engineer. H-piles specified for refusal shall be driven to the nominal required bearing specified on the plans. Test piles shall be of the same material and size as the permanent piles, except that, if creosoted piles are specified, untreated piles may be used by written permission of the Engineer, if not driven in a permanent location or within any footing area. If metal shoes are required on permanent piles, the test piles shall be provided with metal shoes of the same kind. Steel test piles driven in a permanent location shall be painted as specified for permanent steel piles. Test piles shall be driven with the same equipment as will be used for driving the permanent piles. Before driving test piles, the excavation shall be completed to an elevation not more than 600 mm (2 ft) above the proposed grade at the point where a test pile is to be driven except when piles are specified to be driven to refusal bearing. Test piles driven as permanent piles shall be cut off as permanent piles. Test piles not driven in a permanent location shall be cut off or pulled, as directed by the Engineer.

The driven bearing of each test pile will be determined according to Article 512.14 and the lengths of the permanent piles to be furnished will be determined by the Engineer from these test piles.

512.16 Length of Piles. The Contractor shall furnish pile lengths according to a written itemized list provided by the Engineer. Should the Contractor elect to preorder piles prior to being furnished with the itemized list, it will be at his/her own risk. All costs associated with driving and splicing preordered piles that are shorter than the authorized furnished length shall be at the Contractor's expense. The authorized furnished length will be based on the Engineer's evaluation of the test pile results. If the plans do not require a test pile, the ordered length shall be as noted on the plans.

512.17 Method of Measurement. Piling will be measured for payment in the following manner:

- (a) By Number. Test piles, pile test loadings and metal shoes will be measured by determining the number of each of these items.
- (b) By Length. Furnishing and driving piles; furnishing, driving, and filling metal shells for cast-in-place concrete piles and cast-in-place concrete pile extensions will be measured in meters (feet). Measurement of lengths will be made to the nearest 0.1 m (0.1 ft).
- (c) By Volume. Concrete encasement will be measured in cubic meters (cubic yards) according to Article 503.21.

512.18 Basis of Payment. Payment for piling will be made in the following manner:

- (a) Furnishing Timber Piles. This work will be paid for at the contract unit price per meter (foot) for FURNISHING UNTREATED PILES and for FURNISHING CREOSOTED PILES. Payment will be made for the total number of meters (feet) of all piles which have been delivered to the site of the work, according to the itemized list furnished by the Engineer, and additional lengths ordered by the Engineer, and which have been accepted.

If a pile is furnished in a length different from the plan length but the length as furnished is within a length range for which a unit price is provided in the contract, that pile will be paid for at the contract unit price for piles of that length range. If the length of a pile as furnished is not within a length range for which a price is provided in the contract, payment for that pile will be made at a unit price determined by multiplying the contract unit price for the length of that pile as shown on the plans by the percentages given in the following tables:

Length Range of Pile Shown in Contract meters (feet)	UNTREATED PILES		
	Percentage of Contract Unit Price		
	Length Furnished Up to 9 m (30 ft)	Length Furnished 9.1 m to 14 m (30.1 to 45 ft)	Length Furnished Over 14 m (45 ft)
Up to 9 (30)	100	115	125
9.1 (30.1) to 14 (45)	90	100	110
Over 14 (45)	85	95	100

Length Range of Pile Shown in Contract meters (feet)	CREOSOTED PILES		
	Percentage of Contract Unit Price		
	Length Furnished Up to 6 m (20 ft)	Length Furnished 6.1 m to 11.5 m (20.1 to 38 ft)	Length Furnished Over 11.5 m (38 ft)
Up to 6 (20)	100	115	125
6.1 (20.1) to 11.5 (38)	90	100	110
Over 11.5 (38)	85	95	100

The unit price per meter (foot) as provided in the contract or as above determined will be payment in full for furnishing the piles at the site of the work. No payment will be made for falsework piles or for splices and extensions which are made necessary by damage during driving.

- (b) Furnishing Precast Concrete, Precast, Prestressed Concrete, Metal Shell and Steel Piles. This work will be paid for at the contract unit price per meter (foot) for FURNISHING PRECAST CONCRETE PILES, FURNISHING PRECAST PRESTRESSED CONCRETE PILES, FURNISHING METAL PILE SHELLS and FURNISHING STEEL PILES of the size designated. Payment will be made for the total number of meters (feet) of all piles which have been delivered to or manufactured at the site of the work according to the itemized list furnished by the Engineer, and which have been accepted. This length will include additional lengths ordered by the Engineer and accepted, and "build-ups", except those for which payment for furnishing is provided in Article 512.18(f). The length of a "build-up" will include the length required to replace that portion of the main pile which is cut off in making the extension. No payment will be made for "build-ups" made necessary by damage to the piles during driving. The contract unit price per meter (foot) for furnishing steel piles shall include furnishing steel caps, if shown on the plans. If the plans provide for piles having an estimated length of 14 m (45 ft) or less and the piles as cast are to have a length of more than 14 m (45 ft), the additional weight of the longitudinal bars will be paid for according to Article 109.04.
- (c) Driving Timber, Precast Concrete, Precast, Prestressed Concrete and Steel Piles and Driving and Filling Metal Shells for Cast-in-Place Concrete Piles.

This work will be paid for at the contract unit price per meter (foot) for DRIVING TIMBER PILES, DRIVING PRECAST CONCRETE PILES, DRIVING PRECAST, PRESTRESSED CONCRETE PILES, DRIVING STEEL PILES and DRIVING AND FILLING SHELLS, subject to the following terms and conditions.

Payment will be made for the total number of meters (feet) of all piles left in place. For timber, metal shell and steel piles, this length will include the length of all extensions below the cutoff. For precast and precast, prestressed concrete piles, this length will include the length of all "build-ups", but not the portion cut off for making the splice. The contract unit price will include payment for furnishing and placing concrete and reinforcing bars when required, in metal pile shells, and payment for erecting caps, if specified, for steel piles. No payment will be made for cutoffs, treatment of pile heads, defective shells or for driving falsework piles.

- (d) **Furnishing Concrete Piles.** The piles furnished under this item shall be either Precast Concrete, Precast, Prestressed Concrete or Metal Shell Cast-in-Place Piles. The selection of the type of pile to be used shall be at the option of the Contractor from among those shown on the plans as alternates. This work will be paid for at the contract unit price per meter (foot) for FURNISHING CONCRETE PILES. The length paid for will be as specified in Article 512.18(b).
- (e) **Driving Concrete Piles.** This work will be paid for at the contract unit price per meter (foot) for DRIVING CONCRETE PILES. Payment will be made for the total number of meters (feet) as specified in Article 512.18(c).
- (f) **Splices for Piles.** No extra compensation will be allowed for splices for piles, except that, when splices are required because of the use of lengths in excess of those given in the itemized list furnished to the Contractor by the Engineer, such splices will be paid for according to Article 109.04. For timber piles, metal shells for cast-in-place concrete piles and steel piles, the extra work to be paid for will be the work involved in making the splice. For precast and precast, prestressed concrete piles, the extra work shall include the removal of the portion cut off for making the splice and the furnishing of all materials and constructing the "build-up" above the splice.
- (g) **Concrete Encasement.** The concrete encasement of steel piles and cast-in-place concrete piles will be paid for at the contract unit price per cubic meter (cubic yard) for CONCRETE ENCASEMENT, which price shall include payment for furnishing and placing the reinforcement required for the encasement and any excavation necessary to construct it.
- (h) **Cast-in-Place Pile Extensions.** When metal shell cast-in-place concrete piles are to be extended with a reinforced concrete section above the top of the metal shell, that portion above the top of the metal shell will be paid for at the contract unit price per meter (foot) for CAST-IN-PLACE PILE EXTENSIONS, which price will include payment for all reinforcement in the extensions and in the splices between the extensions and metal shell concrete piles. Concrete extending below the tops of the metal shells, and all reinforcement therein, will not be measured for payment but the cost will be included in the price for the extensions above the tops of the metal shells.
- (i) **Test Piles.** Furnishing and driving test piles will be paid for at the contract unit price each for TEST PILES, of the type designated, which price will include all work specified in Article 512.15 or otherwise required for test piles to serve as permanent piles. Piles paid for as Test Piles will not be paid for under any other item.
- (j) **Loading Tests.** Loading tests to determine the safe bearing value of a pile will be paid for at the contract unit price each for PILE TEST LOADING.
- (k) **Metal Shoes.** The furnishing of metal shoes for piles, other than test piles, will be paid for at the contract unit price each for METAL SHOES which price shall include payment for attaching the shoes to the piles.
- (l) When either of the following two conditions occur, the Engineer may authorize blasting and/or

other work not otherwise provided for to obtain the specified penetration, and payment will be made according to Article 109.04.

- (1) When it is specified that piles are to be driven to a predetermined bearing, and hard or firm material is encountered at locations where piles are being driven, and penetration cannot be obtained by ordinary driving and jetting as determined by the Engineer.
- (2) When it is specified that piles are to be driven to a predetermined elevation regardless of bearing, and ledge rock or concrete which is indiscernible, or not shown on the plans, or mentioned in the Special Provisions is encountered.

**REQUIRED CONTRACT PROVISIONS
FEDERAL-AID CONSTRUCTION CONTRACTS**

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ATTACHMENTS

- A. Employment Preference for Appalachian Contracts
(included in Appalachian contracts only)

I. GENERAL

1. These contract provisions shall apply to all work performed on the contract by the contractor's own organization and with the assistance of workers under the contractor's immediate superintendence and to all work performed on the contract by piecework, station work, or by subcontract.

2. Except as otherwise provided for in each section, the contractor shall insert in each subcontract all of the stipulations contained in these Required Contract Provisions, and further require their inclusion in any lower tier subcontract or purchase order that may in turn be made. The Required Contract Provisions shall not be incorporated by reference in any case. The prime contractor shall be responsible for compliance by any subcontractor or lower tier subcontractor with these Required Contract Provisions.

3. A breach of any of the stipulations contained in these Required Contract Provisions shall be sufficient grounds for termination of the contract.

4. A breach of the following clauses of the Required Contract Provisions may also be grounds for debarment as provided in 29 CFR 5.12:

- Section I, paragraph 2;
- Section IV, paragraphs 1, 2, 3, 4 and 7;
- Section V, paragraphs 1 and 2a through 2g.

5. Disputes arising out of the labor standards provisions of Section IV (except paragraph 5) and Section V of these Required Contract Provisions shall not be subject to the general disputes clause of this contract. Such disputes shall be resolved in accordance with the procedures of the U.S. Department of Labor (DOL) as set forth in 29 CFR 5, 6 and 7. Disputes within the meaning of this clause include disputes between the contractor (or any of its subcontractors) and the contracting agency, the DOL, or the contractor's employees or their representatives.

6. Selection of Labor: During the performance of this contract, the contractor shall not:

- a. Discriminate against labor from any other State, possession, or territory of the United States (except for employment preference for Appalachian contracts, when applicable, as specified in Attachment A), or
- b. Employ convict labor for any purpose within the limits of the project unless it is labor performed by convicts who are on parole, supervised release, or probation.

II. NONDISCRIMINATION

1. Equal Employment Opportunity: Equal employment opportunity (EEO) requirements not to discriminate and to take affirmative action to assure equal opportunity as set forth under laws, executive orders, rules, regulations (28 CFR 35, 29 CFR 1630 and 41 CFR 60 (and orders of the Secretary of Labor as modified by the provisions prescribed herein, and imposed pursuant to 23 U.S.C. 140 shall constitute the EEO and specific affirmative action standards for the contractor's project activities under this contract. The Equal Opportunity Construction Contract Specifications set forth under 41 CFR 60-4.3 and the provisions of the American Disabilities Act of 1990 (42 U.S.C. 12101 et seq.) set forth under 28 CFR 35 and 29 CFR 1630 are incorporated by reference in this contract. In the execution of this contract, the contractor agrees to comply with the following minimum specific requirement activities of EEO:

a. The contractor will work with the State highway agency (SHA) and the Federal Government in carrying out EEO obligations and in their review of his/her activities under the contract.

b. The contractor will accept as his operating policy the following statement:

"It is the policy of this Company to assure that applicants are employed, and that employees are treated during employment, without regard to their race, religion, sex, color, national origin, age or disability. Such action shall include: employment, upgrading, demotion, or transfer; recruitment or recruitment advertising; layoff or termination; rates of pay or other forms of compensation; and selection for training, including apprenticeship, preapprenticeship, and/or on-the-job-training."

2. EEO Officer: The contractor will designate and make known to the SHA contracting officers an EEO Officer who will have the responsibility for an must be capable of effectively administering and promoting an active contractor program of EEO and who must be assigned adequate authority and responsibility to do so.

3. Dissemination of Policy: All members of the contractor's staff who are authorized to hire, supervise, promote, and discharge employees, or who recommend such action, or who are substantially involved in such action, will be made fully cognizant of, and will implement, the contractor's EEO policy and contractual responsibilities to provide EEO in each grade and classification of employment. To ensure that the above

agreement will be met, the following actions will be taken as a minimum:

a. Periodic meetings of supervisory and personnel office employees will be conducted before the start of work and then not less often than once every six months, at which time the contractor's EEO policy and its implementation will be reviewed and explained. The meetings will be conducted by the EEO Officer.

b. All new supervisory or personnel office employees will be given a thorough indoctrination by the EEO Officer, covering all major aspects of the contractor's EEO obligations within thirty days following their reporting for duty with the contractor.

c. All personnel who are engaged in direct recruitment for the project will be instructed by the EEO Officer in the contractor's procedures for locating and hiring minority group employees.

d. Notices and posters setting forth the contractor's EEO policy will be placed in areas readily accessible to employees, applicants for employment and potential employees.

e. The contractor's EEO policy and the procedures to implement such policy will be brought to the attention of employees by means of meetings, employee handbooks, or other appropriate means.

4. Recruitment: When advertising for employees, the contractor will include in all advertisements for employees the notation: "An Equal Opportunity Employer." All such advertisements will be placed in publications having a large circulation among minority groups in the area from which the project work force would normally be derived.

a. The contractor will, unless precluded by a valid bargaining agreement, conduct systematic and direct recruitment through public and private employees referral sources likely to yield qualified minority group applicants. To meet this requirement, the contractor will identify sources of potential minority group employees, and establish which such identified sources procedures whereby minority group applicants may be referred to the contractor for employment consideration.

b. In the event the contractor has a valid bargaining agreement providing for exclusive hiring hall referrals, he is expected to observe the provisions of that agreement to the extent that the system permits the contractor's compliance with EEO contract provisions. (The DOL has held that where implementation of such agreements have the effect of discriminating against minorities or women, or obligates the contractor to do the same, such implementation violates Executive Order 11246, as amended.)

c. The contractor will encourage his present employees to refer minority group applicants for employment. Information and procedures with regard to referring minority group applicants will be discussed with employees.

5. Personnel Actions: Wages, working conditions, and employee benefits shall be established and administered, and personnel actions of every type, including hiring, upgrading, promotion, transfer, demotion, layoff, and termination, shall be taken without regard to race, color, religion, sex, national origin, age or disability. The following procedures shall be followed:

a. The contractor will conduct periodic inspections of project sites to insure that working conditions and employee facilities do not indicate discriminatory treatment of project site personnel.

b. The contractor will periodically evaluate the spread of wages paid within each classification to determine any

evidence of discriminatory wage practices.

c. The contractor will periodically review selected personnel actions in depth to determine whether there is evidence of discrimination. Where evidence is found, the contractor will promptly take corrective action. If the review indicates that the discrimination may extend beyond the actions reviewed, such corrective action shall include all affected persons.

d. The contractor will promptly investigate all complaints of alleged discrimination made to the contractor in connection with his obligations under this contract, will attempt to resolve such complaints, and will take appropriate corrective action within a reasonable time. If the investigation indicates that the discrimination may affect persons other than the complainant, such corrective action shall include such other persons. Upon completion of each investigation, the contractor will inform every complainant of all of his avenues of appeal.

6. Training and Promotion:

a. The contractor will assist in locating, qualifying, and increasing the skills of minority group and women employees, and applicants for employment.

b. Consistent with the contractor's work force requirements and as permissible under Federal and State regulations, the contractor shall make full use of training programs, i.e., apprenticeship, and on-the-job training programs for the geographical area of contract performance. Where feasible, 25 percent of apprentices or trainees in each occupation shall be in their first year of apprenticeship or training. In the event a special provision for training is provided under this contract, this subparagraph will be superseded as indicated in the special provision.

c. The contractor will advise employees and applicants for employment of available training programs and entrance requirements for each.

d. The contractor will periodically review the training and promotion potential of minority group and women employees and will encourage eligible employees to apply for such training and promotion.

7. Unions: If the contractor relies in whole or in part upon unions as a source of employees, the contractor will use his/her best efforts to obtain the cooperation of such unions to increase opportunities for minority groups and women within the unions, and to effect referrals by such unions of minority and female employees. Actions by the contractor either directly or through a contractor's association acting as agent will include the procedures set forth below:

a. The contractor will use best efforts to develop, in cooperation with the unions, joint training programs aimed toward qualifying more minority group members and women for membership in the unions and increasing the skills of minority group employees and women so that they may qualify for higher paying employment.

b. The contractor will use best efforts to incorporate an EEO clause into each union agreement to the end that such union will be contractually bound to refer applicants without regard to their race, color, religion, sex, national origin, age or disability.

c. The contractor is to obtain information as to the referral practices and policies of the labor union except that to the extent such information is within the exclusive possession of the labor union and such labor union refuses to furnish such information to the contractor, the contractor shall so certify to

the SHA and shall set forth what efforts have been made to obtain such information.

d. In the event the union is unable to provide the contractor with a reasonable flow of minority and women referrals within the time limit set forth in the collective bargaining agreement, the contractor will, through independent recruitment efforts, fill the employment vacancies without regard to race, color, religion, sex, national origin, age or disability; making full efforts to obtain qualified and/or quailifiable minority group persons and women. (The DOL has held that it shall be no excuse that the union with which the contractor has a collective bargaining agreement providing for exclusive referral failed to refer minority employees.) In the event the union referral practice prevents the contractor from meeting the obligations pursuant to Executive Order 11246, as amended, and these special provisions, such contractor shall immediately notify the SHA.

8. Selection of Subcontractors, Procurement of Materials and Leasing of Equipment: The contractor shall not discriminate on the grounds of race, color, religion, sex, national origin, age or disability in the selection and retention of subcontractors, including procurement of materials and leases of equipment.

a. The contractor shall notify all potential subcontractors and suppliers of his/her EEO obligations under this contract.

b. Disadvantaged business enterprises (DBE), as defined in 49 CFR 23, shall have equal opportunity to compete for and perform subcontracts which the contractor enters into pursuant to this contract. The contractor will use his best efforts to solicit bids from and to utilize DBE subcontractors or subcontractors with meaningful minority group and female representation among their employees. Contractors shall obtain lists of DBE construction firms from SHA personnel.

c. The contractor will use his best efforts to ensure subcontractor compliance with their EEO obligations.

9. Records and Reports: The contractor shall keep such records as necessary to document compliance with the EEO requirements. Such records shall be retained for a period of three years following completion of the contract work and shall be available at reasonable times and places for inspection by authorized representatives of the SHA and the FHWA.

a. The records kept by the contractor shall document the following:

(1) The number of minority and non-minority group members and women employed in each work classification on the project;

(2) The progress and efforts being made in cooperation with unions, when applicable, to increase employment opportunities for minorities and women;

(3) The progress and efforts being made in locating, hiring, training, qualifying, and upgrading minority and female employees; and

(4) The progress and efforts being made in securing the services of DBE subcontractors or subcontractors with meaningful minority and female representation among their employees.

b. The contractors will submit an annual report to the SHA each July for the duration of the project, indicating the number of minority, women, and non-minority group employees currently engaged in each work classification required by the contract work. This information is to be reported on Form FHWA-1391. If on-the-job training is being required by special provision, the contractor will be required to collect and report training data.

III. NONSEGREGATED FACILITIES

(Applicable to all Federal-aid construction contracts and to all related subcontracts of \$10,000 or more.)

a. By submission of this bid, the execution of this contract or subcontract, or the consummation of this material supply agreement or purchase order, as appropriate, the bidder, Federal-aid construction contractor, subcontractor, material supplier, or vendor, as appropriate, certifies that the firm does not maintain or provide for its employees any segregated facilities at any of its establishments, and that the firm does not permit its employees to perform their services at any location, under its control, where segregated facilities are maintained. The firm agrees that a breach of this certification is a violation of the EEO provisions of this contract. The firm further certifies that no employee will be denied access to adequate facilities on the basis of sex or disability.

b. As used in this certification, the term "segregated facilities" means any waiting rooms, work areas, restrooms and washrooms, restaurants and other eating areas, timeclocks, locker rooms, and other storage or dressing areas, parking lots, drinking fountains, recreation or entertainment areas, transportation, and housing facilities provided for employees which are segregated by explicit directive, or are, in fact, segregated on the basis of race, color, religion, national origin, age or disability, because of habit, local custom, or otherwise. The only exception will be for the disabled when the demands for accessibility override (e.g. disabled parking).

c. The contractor agrees that it has obtained or will obtain identical certification from proposed subcontractors or material suppliers prior to award of subcontracts or consummation of material supply agreements of \$10,000 or more and that it will retain such certifications in its files.

IV. PAYMENT OF PREDETERMINED MINIMUM WAGE

(Applicable to all Federal-aid construction contracts exceeding \$2,000 and to all related subcontracts, except for projects located on roadways classified as local roads or rural minor collectors, which are exempt.)

1. General:

a. All mechanics and laborers employed or working upon the site of the work will be paid unconditionally and not less often than once a week and without subsequent deduction or rebate on any account [except such payroll deductions as are permitted by regulations (29 CFR 3) issued by the Secretary of Labor under the Copeland Act (40 U.S.C. 276c)] the full amounts of wages and bona fide fringe benefits (or cash equivalents thereof) due at time of payment. The payment shall be computed at wage rates not less than those contained in the wage determination of the Secretary of Labor (hereinafter "the wage determination") which is attached hereto and made a part hereof, regardless of any contractual relationship which may be alleged to exist between the

contractor or its subcontractors and such laborers and mechanics. The wage determination (including any additional classifications and wage rates conformed under paragraph 2 of this Section IV and the DOL poster (WH-1321) or Form FHWA-1495) shall be posted at all times by the contractor and its subcontractors at the site of the work in a prominent and accessible place where it can be easily seen by the workers. For the purpose of this Section, contributions made or costs reasonably anticipated for bona fide fringe benefits under Section 1(b)(2) of the Davis-Bacon Act (40 U.S.C. 276a) on behalf of laborers or mechanics are considered wages paid to such laborers or mechanics, subject to the provisions of Section IV, paragraph 3b, hereof. Also, for the purpose of this Section, regular contributions made or costs incurred for more than a weekly period (but not less often than quarterly) under plans, funds, or programs, which cover the particular weekly period, are deemed to be constructively made or incurred during such weekly period. Such laborers and mechanics shall be paid the appropriate wage rate and fringe benefits on the wage determination for the classification of work actually performed, without regard to skill, except as provided in paragraphs 4 and 5 of this Section IV.

b. Laborers or mechanics performing work in more than one classification may be compensated at the rate specified for each classification for the time actually worked therein, provided, that the employer's payroll records accurately set forth the time spent in each classification in which work is performed.

c. All rulings and interpretations of the Davis-Bacon Act and related acts contained in 29 CFR 1, 3, and 5 are herein incorporated by reference in this contract.

2. Classification:

a. The SHA contracting officer shall require that any class of laborers or mechanics employed under the contract, which is not listed in the wage determination, shall be classified in conformance with the wage determination.

b. The contracting officer shall approve an additional classification, wage rate and fringe benefits only when the following criteria have been met:

(1) the work to be performed by the additional classification requested is not performed by a classification in the wage determination;

(2) the additional classification is utilized in the area by the construction industry;

(3) the proposed wage rate, including any bona fide fringe benefits, bears a reasonable relationship to the wage rates contained in the wage determination; and

(4) with respect to helpers, when such a classification prevails in the area in which the work is performed.

c. If the contractor or subcontractors, as appropriate, the laborers and mechanics (if known) to be employed in the additional classification or their representatives, and the contracting officer agree on the classification and wage rate (including the amount designated for fringe benefits where appropriate), a report of the action taken shall be sent by the contracting officer to the DOL, Administrator of the Wage and Hour Division, Employment Standards Administration, Washington, D.C. 20210. The Wage and Hour Administrator, or an authorized representative, will approve, modify, or

disapprove every additional classification action within 30 days of receipt and so advise the contracting officer or will notify the contracting officer within the 30-day period that additional time is necessary.

d. In the event the contractor or subcontractors, as appropriate, the laborers or mechanics to be employed in the additional classification or their representatives, and the contracting officer do not agree on the proposed classification and wage rate (including the amount designated for fringe benefits, where appropriate), the contracting officer shall refer the question, including the views of all interested parties and the recommendation of the contracting officer, to the Wage and Hour Administrator for determination. Said Administrator, or an authorized representative, will issue a determination within 30 days of receipt and so advise the contracting officer or will notify the contracting officer within the 30-day period that additional time is necessary.

e. The wage rate (including fringe benefits where appropriate) determined pursuant to paragraph 2c or 2d of this Section IV shall be paid to all workers performing work in the additional classification from the first day on which work is performed in the classification.

3. Payment of Fringe Benefits:

a. Whenever the minimum wage rate prescribed in the contract for a class of laborers or mechanics includes a fringe benefit which is not expressed as an hourly rate, the contractor or subcontractors, as appropriate, shall either pay the benefit as stated in the wage determination or shall pay another bona fide fringe benefit or an hourly case equivalent thereof.

b. If the contractor or subcontractor, as appropriate, does not make payments to a trustee or other third person, he/she may consider as a part of the wages of any laborer or mechanic the amount of any cost reasonably anticipated in providing bona fide fringe benefits under a plan or program, provided that the Secretary of Labor has found, upon the written request of the contractor, that the applicable standards of the Davis-Bacon Act have been met. The Secretary of Labor may require the contractor to set aside in a separate account assets for the meeting of obligations under the plan or program.

4. Apprentices and Trainees (Programs of the U.S. DOL) and Helpers:

a. Apprentices:

(1) Apprentices will be permitted to work at less than the predetermined rate for the work they performed when they are employed pursuant to and individually registered in a bona fide apprenticeship program registered with the DOL, Employment and Training Administration, Bureau of Apprenticeship and Training, or with a State apprenticeship agency recognized by the Bureau, or if a person is employed in his/her first 90 days of probationary employment as an apprentice in such an apprenticeship program, who is not individually registered in the program, but who has been certified by the Bureau of Apprenticeship and Training or a State apprenticeship agency (where appropriate) to be eligible for probationary employment as an apprentice.

(2) The allowable ratio of apprentices to journeyman-level employees on the job site in any craft classification shall not

listed on the wage determination unless the Administrator of the

be greater than the ratio permitted to the contractor as to the entire work force under the registered program. Any employee listed on a payroll at an apprentice wage rate, who is not registered or otherwise employed as stated above, shall be paid not less than the applicable wage rate listed in the wage determination for the classification of work actually performed. In addition, any apprentice performing work on the job site in excess of the ratio permitted under the registered program shall be paid not less than the applicable wage rate on the wage determination for the work actually performed. Where a contractor or subcontractor is performing construction on a project in a locality other than that in which its program is registered, the ratios and wage rates (expressed in percentages of the journeyman-level hourly rate) specified in the contractor's or subcontractor's registered program shall be observed.

(3) Every apprentice must be paid at not less than the rate specified in the registered program for the apprentice's level of progress, expressed as a percentage of the journeyman-level hourly rate specified in the applicable wage determination. Apprentices shall be paid fringe benefits in accordance with the provisions of the apprenticeship program. If the apprenticeship program does not specify fringe benefits, apprentices must be paid the full amount of fringe benefits listed on the wage determination for the applicable classification. If the Administrator for the Wage and Hour Division determines that a different practice prevails for the applicable apprentice classification, fringes shall be paid in accordance with that determination.

(4) In the event the Bureau of Apprenticeship and Training, or a State apprenticeship agency recognized by the Bureau, withdraws approval of an apprenticeship program, the contractor or subcontractor will no longer be permitted to utilize apprentices at less than the applicable predetermined rate for the comparable work performed by regular employees until an acceptable program is approved.

b. Trainees:

(1) Except as provided in 29 CFR 5.16, trainees will not be permitted to work at less than the predetermined rate for the work performed unless they are employed pursuant to and individually registered in a program which has received prior approval, evidenced by formal certification by the DOL, Employment and Training Administration.

(2) The ratio of trainees to journeyman-level employees on the job site shall not be greater than permitted under the plan approved by the Employment and Training Administration. Any employee listed on the payroll at a trainee rate who is not registered and participating in a training plan approved by the Employment and Training Administration shall be paid not less than the applicable wage rate on the wage determination for the classification of work actually performed. In addition, any trainee performing work on the job site in excess of the ratio permitted under the registered program shall be paid not less than the applicable wage rate on the wage determination for the work actually performed.

(3) Every trainee must be paid at not less than the rate specified in the approved program for his/her level of progress, expressed as a percentage of the journeyman-level hourly rate specified in the applicable wage determination. Trainees shall be paid fringe benefits in accordance with the provisions of the trainee program. If the trainee program does not mention fringe benefits, trainees shall be paid the full amount of fringe benefits

Wage and Hour Division determines that there is an apprenticeship program associated with the corresponding journeyman-level wage rate on the wage determination which provides for less than full fringe benefits for apprentices, in which cases such trainees shall receive the same fringe benefits as apprentices.

(4) In the event the Employment and Training Administration withdraws approval of a training program, the contractor or subcontractor will no longer be permitted to utilize trainees at less than the applicable predetermined rate for the work performed until an acceptable program is approved.

c. Helpers:

Helpers will be permitted to work on a project if the helper classification is specified and defined on the applicable wage determination or is approved pursuant to the conformance procedure set forth in Section IV. 2. Any worker listed on a payroll at a helper wage rate, who is not a helper under a approved definition, shall be paid not less than the applicable wage rate on the wage determination for the classification of work actually performed.

5. Apprentices and Trainees (Programs of the U.S. DOT):

Apprentices and trainees working under apprenticeship and skill training programs which have been certified by the Secretary of Transportation as promoting EEO in connection with Federal-aid highway construction programs are not subject to the requirements of paragraph 4 of this Section IV. The straight time hourly wage rates for apprentices and trainees under such programs will be established by the particular programs. The ratio of apprentices and trainees to journeymen shall not be greater than permitted by the terms of the particular program.

6. Withholding:

The SHA shall upon its own action or upon written request of an authorized representative of the DOL withhold, or cause to be withheld, from the contractor or subcontractor under this contract or any other Federal contract with the same prime contractor or any other Federally-assisted contract subject to Davis-Bacon prevailing wage requirements which is held by the same prime contractor, as much of the accrued payments or advances as may be considered necessary to pay laborers and mechanics, including apprentices, trainee's and helpers, employed by the contractor or any subcontractor the full amount of wages required by the contract. In the event of failure to pay any laborer or mechanic, including any apprentice, trainee, or helper, employed or working on the site of the work, all or part of the wages required by the contract, the SHA contracting officer may, after written notice to the contractor, take such action as may be necessary to cause the suspension of any further payment, advance, or guarantee of funds until such violations have ceased.

7. Overtime Requirements:

No contractor or subcontractor contracting for any part of the contract work which may require or involve the employment of laborers, mechanics, watchmen, or guards (including apprentices, trainees, and helpers described in paragraphs 4 and 5 above) shall require or permit any laborer, mechanic, watchman, or guard in any workweek in which he/she is employed on such work, to work in excess of 40 hours in such workweek unless such laborer, mechanic, watchman, or guard receives compensation at a rate not less than one-and-one-half times his/her basic rate of pay for all hours worked in excess of 40 hours in such workweek.

8. Violation:

Liability for Unpaid Wages; Liquidated Damages: In the event of any violation of the clause set forth in paragraph 7 above, the contractor and any subcontractor responsible thereof shall be liable to the affected employee for his/her unpaid wages. In addition, such contractor and subcontractor shall be liable to the United States (in the case of work done under contract for the District of Columbia or a territory, to such District or to such territory) for liquidated damages. Such liquidated damages shall be computed with respect to each individual laborer, mechanic, watchman, or guard employed in violation of the clause set forth in paragraph 7, in the sum of \$10 for each calendar day on which such employee was required or permitted to work in excess of the standard work week of 40 hours without payment of the overtime wages required by the clause set forth in paragraph 7.

9. Withholding for Unpaid Wages and Liquidated Damages:

The SHA shall, upon its own action or upon written request of any authorized representative of the DOL withhold, or cause to be withheld, from any monies payable on account of work performed by the contractor or subcontractor under any such contract or any other Federal contract with the same prime contractor, or any other Federally-assisted contract subject to the Contract Work Hours and Safety Standards Act, which is held by the same prime contractor, such sums as may be determined to be necessary to satisfy any liabilities of such contractor or subcontractor for unpaid wages and liquidated damages as provided in the clause set forth in paragraph 8 above.

V. STATEMENTS AND PAYROLLS

(Applicable to all Federal-aid construction contracts exceeding \$2,000 and to all related subcontracts, except for projects located on roadways classified as local roads or rural collectors, which are exempt.)

1. Compliance with Copeland Regulations (29 CFR 3):

The contractor shall comply with the Copeland Regulations of the Secretary of Labor which are herein incorporated by reference.

2. Payrolls and Payroll Records:

a. Payrolls and basic records relating thereto shall be maintained by the contractor and each subcontractor during the course of the work and preserved for a period of 3 years from the date of completion of the contract for all laborers, mechanics, apprentices, trainees, watchmen, helpers, and guards working at the site of the work.

b. The payroll records shall contain the name, social security number, and address of each such employee; his or her correct classification; hourly rates of wages paid (including rates of contributions or costs anticipated for bona fide fringe benefits or cash equivalent thereof the types described in Section 1(b)(2)(B) of the Davis Bacon Act); daily and weekly number of hours worked; deductions made; and actual wages paid. In addition, for Appalachian contracts, the payroll records shall contain a notation indicating whether the employee does, or does not, normally reside in the labor area as defined in Attachment A, paragraph 1. Whenever the Secretary of Labor, pursuant to Section IV, paragraph 3b, has found that the wages of any laborer or mechanic include the amount of any costs reasonably anticipated in providing benefits under a plan

or program described in Section 1(b)(2)(B) of the Davis Bacon Act, the contractor and each subcontractor shall maintain records which show that the commitment to provide such benefits is enforceable, that the plan or program is financially responsible, that the plan or program has been communicated in writing to the laborers or mechanics affected, and show the cost anticipated or the actual cost incurred in providing benefits. Contractors or subcontractors employing apprentices or trainees under approved programs shall maintain written evidence of the registration of apprentices and trainees, and ratios and wage rates prescribed in the applicable programs.

c. Each contractor and subcontractor shall furnish, each week in which any contract work is performed, to the SHA resident engineer a payroll of wages paid each of its employees (including apprentices trainees, and helpers, described in Section IV, paragraphs 4 and 5, and watchmen and guards engaged on work during the preceding weekly payroll period).

The payroll submitted shall set out accurately and completely all of the information required to be maintained under paragraph 2b of this Section V.

This information may be submitted in any form desired. Optional Form WH-347 is available for this purpose and may be purchased from the Superintendent of Documents (Federal stock number 029-005-0014-1), U.S. Government Printing Office, Washington, D.C. 20402. The prime contractor is responsible for the submission of copies of payrolls by all subcontractors.

d. Each payroll submitted shall be accompanied by a "Statement of Compliance," signed by the Contractor or subcontractor or his/her agent who pays or supervises the payment of the persons employed under the contract and shall certify the following:

(1) that the payroll for the payroll period contains the information required to be maintained under paragraph 2b of this Section V and that such information is correct and complete;

(2) that such laborer or mechanic (including each helper, apprentice, and trainee) employed on the contract during the payroll period has been paid the full weekly wages earned, without rebate, either directly or indirectly, and that no deductions have been made either directly or indirectly from the full wages earned, other than permissible deductions as set forth in the Regulations, 29 CFR 3;

(3) that each laborer or mechanic has been paid not less than the applicable wage rate and fringe benefits or cash equivalent for the classification of work performed, as specified in the applicable wage determination incorporated into the contract.

e. The weekly submission of a properly executed certification set forth on the reverse side of Optional Form WH-347 shall satisfy the requirement for submission of the "Statement of Compliance" required by paragraph 2d of this Section V.

f. The falsification of any of the above certifications may subject the contractor to civil or criminal prosecution under 18 U.S. C. 1001 and 31 U.S.C. 231.

g. The contractor or subcontractor shall make the records required under paragraph 2b of this Section V available for

inspection, copying, or transcription by authorized representatives of the SHA, the FHWA, or the DOL, and shall permit such representatives to interview employees during working hours on the job. If the contractor or subcontractor fails to submit the required records or to make them available, the SHA, the FHWA, the DOL, or all may, after written notice to the contractor, sponsor, applicant, or owner, take such actions as may be necessary to cause the suspension of any further payment, advance, or guarantee of funds. Furthermore, failure to submit the required records upon request or to make such records available may be grounds for debarment action pursuant to 29 CFR 5.12.

VI. RECORD OF MATERIALS, SUPPLIES, AND LABOR

1. On all federal-aid contracts on the national highway system, except those which provide solely for the installation of protective devices at railroad grade crossings, those which are constructed on a force account or direct labor basis, highway beautification contracts, and contracts for which the total final construction cost for roadway and bridge is less than \$1,000,000 (23 CFR 635) the contractor shall:

a. Become familiar with the list of specific materials and supplies contained in Form FHWA-47, "Statement of Materials and Labor Used by Contractor of Highway Construction Involving Federal Funds," prior to the commencement of work under this contract.

b. Maintain a record of the total cost of all materials and supplies purchased for and incorporated in the work, and also of the quantities of those specific materials and supplies listed on Form FHWA-47, and in the units shown on Form FHWA-47.

c. Furnish, upon the completion of the contract, to the SHA resident engineer on Form FHWA-47 together with the data required in paragraph 1b relative to materials and supplies, a final labor summary of all contract work indicating the total hours worked and the total amount earned.

2. At the prime contractor's option, either a single report covering all contract work or separate reports for the contractor and for each subcontract shall be submitted.

VII. SUBLETTING OR ASSIGNING THE CONTRACT

1. The contractor shall perform with its own organization contract work amounting to not less than 30 percent (or a greater percentage if specified elsewhere in the contract) of the total original contract price, excluding any specialty items designated by the State. Specialty items may be performed by subcontract and the amount of any such specialty items performed may be deducted from the total original contract price before computing the amount of work required to be performed by the contractor's own organization (23 CFR 635).

a. "Its own organization" shall be construed to include only workers employed and paid directly by the prime contractor and equipment owned or rented by the prime contractor, with or without operators. Such term does not include employees or equipment of a subcontractor, assignee, or agent of the prime contractor.

b. "Specialty Items" shall be construed to be limited to work that requires highly specialized knowledge, abilities, or equipment not ordinarily available in the type of contracting organizations qualified and expected to bid on the contract as a

whole and in general are to be limited to minor components of the overall contract.

2. The contract amount upon which the requirements set forth in paragraph 1 of Section VII is computed includes the cost of material and manufactured products which are to be purchased or produced by the contractor under the contract provisions.

3. The contractor shall furnish (a) a competent superintendent or supervisor who is employed by the firm, has full authority to direct performance of the work in accordance with the contract requirements, and is in charge of all construction operations (regardless of who performs the work) and (b) such other of its own organizational resources (supervision, management, and engineering services) as the SHA contracting officer determines is necessary to assure the performance of the contract.

4. No portion of the contract shall be sublet, assigned or otherwise disposed of except with the written consent of the SHA contracting officer, or authorized representative, and such consent when given shall not be construed to relieve the contractor of any responsibility for the fulfillment of the contract.

Written consent will be given only after the SHA has assured that each subcontract is evidenced in writing and that it contains all pertinent provisions and requirements of the prime contract.

VIII. SAFETY: ACCIDENT PREVENTION

1. In the performance of this contract the contractor shall comply with all applicable Federal, State, and local laws governing safety, health, and sanitation (23 CFR 635). The contractor shall provide all safeguards, safety devices and protective equipment and take any other needed actions as it determines, or as the SHA contracting officer may determine, to be reasonably necessary to protect the life and health of employees on the job and the safety of the public and to protect property in connection with the performance of the work covered by the contract.

2. It is a condition of this contract, and shall be made a condition of each subcontract, which the contractor enters into pursuant to this contract, that the contractor and any subcontractor shall not permit any employee, in performance of the contract, to work in surroundings or under conditions which are unsanitary, hazardous or dangerous to his/her health or safety, as determined under construction safety and health standards (29 CFR 1926) promulgated by the Secretary of Labor, in accordance with Section 107 of the Contract Work Hours and Safety Standards Act (40 U.S.C. 333).

3. Pursuant to 29 CFR 1926.3, it is a condition of this contract that the Secretary of Labor or authorized representative thereof, shall have right of entry to any site of contract performance to inspect or investigate the matter of compliance with the construction safety and health standards and to carry out the duties of the Secretary under Section 107 of the Contract Work Hours and Safety Standards Act (40 U.S.C. 333).

IX. FALSE STATEMENTS CONCERNING HIGHWAY PROJECTS

In order to assure high quality and durable construction in conformity with approved plans and specifications and a high degree of reliability on statements and representations made by engineers, contractors, suppliers, and workers on Federal-aid highway projects, it is essential that all persons concerned with the project perform their functions as carefully, thoroughly, and honestly as possible. Willful falsification,

distortion, or misrepresentation with respect to any facts related to the project is a violation of Federal law. To prevent any misunderstanding regarding the seriousness of these and similar acts, the following notice shall be posted on each Federal-aid highway project (23 CFR 635) in one or more places where it is readily available to all persons concerned with the project:

NOTICE TO ALL PERSONNEL ENGAGED ON FEDERAL-AID HIGHWAY PROJECTS

18 U.S.C. 1020 reads as follows:

“Whoever, being an officer, agent or employee of the United States, or of any State or Territory, or whoever, whether a person, association, firm, or corporation, knowingly makes any false statement, false representation, or false report as to the character, quality, quantity, or cost of the material used or to be used, or the quantity or quality of the work performed or to be performed, or the cost thereof in connection with the submission of plans, maps, specifications, contracts, or costs of construction on any highway or related project submitted for approval to the Secretary of Transportation; or

Whoever knowingly makes any false statement, false representation, false report or false claim with respect to the character, quality, quantity, or cost of any work performed or to be performed, or materials furnished or to be furnished, in connection with the construction of any highway or related project approved by the Secretary of Transportation; or

Whoever knowingly makes any false statement or false representation as to material fact in any statement, certificate, or report submitted pursuant to provisions of the Federal-aid Roads Act approved July 1, 1916, (39 Stat. 355), as amended and supplemented;

Shall be fined not more than \$10,000 or imprisoned not more than 5 years or both.”

X. IMPLEMENTATION OF CLEAN AIR ACT AND FEDERAL WATER POLLUTION CONTROL ACT

(Applicable to all Federal-aid construction contracts and to all related subcontracts of \$100,000 or more).

By submission of this bid or the execution of this contract, or subcontract, as appropriate, the bidder, Federal-aid construction contractor, or subcontractor, as appropriate, will be deemed to have stipulated as follows:

1. That any facility that is or will be utilized in the performance of this contract, unless such contract is exempt under the Clean Air Act, as amended (42 U.S.C. 1857 et seq., as amended by Pub.L. 91-604), and under the Federal Water Pollution Control Act, as amended (33 U.S.C. 1251 et seq., as amended by Pub.L. 92-500), Executive Order 11738, and regulations in implementation thereof (40 CFR 15) is not listed, on the date of contract award, on the U.S. Environmental Protection Agency (EPA) List of Violating Facilities pursuant to 40 CFR 15.20.

2. That the firm agrees to comply and remain in compliance with all the requirements of Section 114 of the Clean Air Act and Section 308 of the Federal Water Pollution Control Act and all regulations and guidelines listed thereunder.

3. That the firm shall promptly notify the SHA of the receipt of

any communication from the Director, Office of Federal Activities, EPA indicating that a facility that is or will be utilized for the contract is under consideration to be listed on the EPA List of Violating Facilities.

4. That the firm agrees to include or cause to be included the requirements of paragraph 1 through 4 of this Section X in every nonexempt subcontract, and further agrees to take such action as the government may direct as a means of enforcing such requirements.

XI. CERTIFICATION REGARDING DEBARMENT, SUSPENSION, INELIGIBILITY AND VOLUNTARY EXCLUSION

1. Instructions for Certification - Primary Covered Transactions:

(Applicable to all Federal-aid contracts - 49 CFR 29)

a. By signing and submitting this proposal, the prospective primary participant is providing the certification set out below.

b. The inability of a person to provide the certification set out below will not necessarily result in denial of participation in this covered transaction. The prospective participant shall submit an explanation of why it cannot provide the certification set out below. The certification or explanation will be considered in connection with the department or agency's determination whether to enter into this transaction. However, failure of the prospective primary participant to furnish a certification or an explanation shall disqualify such a person from participation in this transaction.

c. The certification in this clause is a material representation of fact upon which reliance was placed when the department or agency determined to enter into this transaction. If it is later determined that the prospective primary participant knowingly rendered an erroneous certification, in addition to other remedies available to the Federal Government, the department or agency may terminate this transaction for cause of default.

d. The prospective primary participant shall provide immediate written notice to the department or agency to whom this proposal is submitted if any time the prospective primary participant learns that its certification was erroneous when submitted or has become erroneous by reason of changed circumstances.

e. The terms “covered transaction,” “debarred,” “suspended,” “ineligible,” “lower tier covered transaction,” “participant,” “person,” “primary covered transaction,” “principal,” “proposal,” and “voluntarily excluded,” as used in this clause, have the meanings set out in the Definitions and Coverage sections of rules implementing Executive Order 12549. You may contact the department or agency to which this proposal is submitted for assistance in obtaining a copy of those regulations.

f. The prospective primary participant agrees by submitting this proposal that, should the proposed covered transaction be entered into, it shall not knowingly enter into any lower tier covered transaction with a person who is debarred, suspended, declared ineligible, or voluntarily excluded from participation in this covered transaction, unless authorized by the department or agency entering into this transaction.

g. The prospective primary participant further agrees by submitting this proposal that it will include the clause titled

"Certification Regarding Debarment, Suspension, Ineligibility and Voluntary Exclusion-Lower Tier Covered Transaction," provided by the department or agency entering into this covered transaction, without modification in all lower tier covered transactions and in all solicitations for lower tier covered transactions.

h. A participant in a covered transaction may rely upon a certification of a prospective participant in a lower tier covered transaction that is not debarred, suspended, ineligible, or voluntarily excluded from the covered transaction, unless it knows that the certification is erroneous. A participant may decide the method and frequency by which it determines the eligibility of its principals. Each participant may, but is not required to, check the nonprocurement portion of the "Lists of Parties Excluded from Federal Procurement or Nonprocurement Programs" (Nonprocurement List) which is compiled by the General Services Administration.

i. Nothing contained in the foregoing shall be construed to require establishment of a system of records in order to render in good faith the certification required by this clause. The knowledge and information of participant is not required to exceed that which is normally possessed by a prudent person in the ordinary course of business dealings.

j. Except for transactions authorized under paragraph f of these instructions, if a participant in a covered transaction knowingly enters into a lower tier covered transaction with a person who is suspended, debarred, ineligible, or voluntarily excluded from participation in this transaction, in addition to other remedies available to the Federal Government, the department or agency may terminate this transaction for cause or default.

Certification Regarding Debarment, Suspension, Ineligibility and Voluntary Exclusion-Primary Covered Transactions

1. The prospective primary participant certifies to the best of its knowledge and belief, that it and its principals:

- a. Are not presently debarred, suspended, proposed for debarment, declared ineligible, or voluntarily excluded from covered transactions by any Federal department or agency;
- b. Have not within a 3-year period preceding this proposal been convicted of or had a civil judgment rendered against them for commission of fraud or a criminal offense in connection with obtaining, attempting to obtain, or performing a public (Federal, State or local) transaction or contract under a public transaction; violation of Federal or State antitrust statutes or commission of embezzlement, theft, forgery, bribery, falsification or destruction of records, making false statements, or receiving stolen property;
- c. Are not presently indicted for or otherwise criminally or civilly charged by a governmental entity (Federal, State or local) with commission of any of the offenses enumerated in paragraph 1b of this certification; and
- d. Have not within a 3-year period preceding this application/proposal had one or more public transactions (Federal, State or local) terminated for cause or default.

2. Where the prospective primary participant is unable to certify to any of the statements in this certification, such prospective participant shall attach an explanation to this proposal.

2. Instructions for Certification - Lower Tier Covered Transactions:

(Applicable to all subcontracts, purchase orders and other lower tier transactions of \$25,000 or more - 49 CFR 29)

- a. By signing and submitting this proposal, the prospective lower tier is providing the certification set out below.
- b. The certification in this clause is a material representation of fact upon which reliance was placed when this transaction was entered into. If it is later determined that the prospective lower tier participant knowingly rendered an erroneous certification, in addition to other remedies available to the Federal Government, the department, or agency with which this transaction originated may pursue available remedies, including suspension and/or debarment.
- c. The prospective lower tier participant shall provide immediate written notice to the person to which this proposal is submitted if at any time the prospective lower tier participant learns that its certification was erroneous by reason of changed circumstances.
- d. The terms "covered transaction," "debarred," "suspended," "ineligible," "primary covered transaction," "participant," "person," "principal," "proposal," and "voluntarily excluded," as used in this clause, have the meanings set out in the Definitions and Coverage sections of rules implementing Executive Order 12549. You may contact the person to which this proposal is submitted for assistance in obtaining a copy of those regulations.
- e. The prospective lower tier participant agrees by submitting this proposal that, should the proposed covered transaction be entered into, it shall not knowingly enter into any lower tier covered transaction with a person who is debarred, suspended, declared ineligible, or voluntarily excluded from participation in this covered transaction, unless authorized by the department or agency with which this transaction originated.
- f. The prospective lower tier participant further agrees by submitting this proposal that it will include this clause titled "Certification Regarding Debarment, Suspension, Ineligibility and Voluntary Exclusion-Lower Tier Covered Transaction," without modification, in all lower tier covered transactions and in all solicitations for lower tier covered transactions.
- g. A participant in a covered transaction may rely upon a certification of a prospective participant in a lower tier covered transaction that is not debarred, suspended, ineligible, or voluntarily excluded from the covered transaction, unless it knows that the certification is erroneous. A participant may decide the method and frequency by which it determines the eligibility of its principals. Each participant may, but is not required to, check the Nonprocurement List.
- h. Nothing contained in the foregoing shall be construed to require establishment of a system of records in order to render in good faith the certification required by this clause. The knowledge and information of participant is not required to exceed that which is normally possessed by a prudent person in the ordinary course of business dealing.
- i. Except for transactions authorized under paragraph e of these instructions, if a participant in a covered transaction knowingly enters into a lower tier covered transaction with a person who is suspended, debarred, ineligible, or voluntarily

excluded from participation in this transaction, in addition to other remedies available to the Federal Government, the department or agency with which this transaction originated may pursue available remedies, including suspension and/or debarment.

Certification Regarding Debarment, Suspension, Ineligibility And Voluntary Exclusion-Lower Tier Covered Transactions:

1. The prospective lower tier participant certifies, by submission of this proposal, that neither it nor its principals is presently debarred, suspended, proposed for debarment, declared ineligible, or voluntarily excluded from participation in this transaction by any Federal department or agency.

2. Where the prospective lower tier participant is unable to certify to any of the statements in this certification, such prospective participant shall attach an explanation to this proposal.

XII. CERTIFICATION REGARDING USE OF CONTRACT FUNDS FOR LOBBYING

(Applicable to all Federal-aid construction contracts and to all related subcontracts which exceed \$100,000 - 49 CFR 20)

1. The prospective participant certifies, by signing and submitting this bid or proposal, to the best of his or her knowledge and belief, that:

a. No Federal appropriated funds have been paid or will be paid, by or on behalf of the undersigned, to any person for influencing or attempting to influence an officer or employee of any Federal agency, a Member of Congress, an officer or employee of Congress, or an employee of a Member of Congress in connection with the awarding of any Federal contract, the making of any Federal grant, the making of any Federal loan, the entering into of any cooperative agreement, and the extension, continuation, renewal, amendment, or modification of any Federal contract, grant, loan, or cooperative agreement.

b. If any funds other than Federal appropriated funds have been paid or will be paid to any person for influencing or attempting to influence an officer or employee of any Federal agency, a Member of Congress, an officer or employee of Congress, or an employee of a Member of Congress in connection with this Federal contract, grant, loan, or cooperative agreement, the undersigned shall complete and submit Standard Form-LLL, "Disclosure Form to Report Lobbying," in accordance with its instructions.

2. This certification is a material representation of fact upon which reliance was placed when this transaction was made or entered into. Submission of this certification is a prerequisite for making or entering into this transaction imposed by 31 U.S.C. 1352. Any person who fails to file the required certification shall be subject to a civil penalty of not less than \$10,000 and not more than \$100,000 for each such failure.

3. The prospective participant also agrees by submitting his or her bid or proposal that he or she shall require that the language of this certification be included in all lower tier subcontracts, which exceed \$100,000 and that all such recipients shall certify and disclose accordingly.

MINIMUM WAGES FOR FEDERAL AND FEDERALLY ASSISTED CONSTRUCTION CONTRACTS

This project is funded, in part, with Federal-aid funds and, as such, is subject to the provisions of the Davis-Bacon Act of March 3, 1931, as amended (46 Sta. 1494, as amended, 40 U.S.C. 276a) and of other Federal statutes referred to in a 29 CFR Part 1, Appendix A, as well as such additional statutes as may from time to time be enacted containing provisions for the payment of wages determined to be prevailing by the Secretary of Labor in accordance with the Davis-Bacon Act and pursuant to the provisions of 29 CFR Part 1. The prevailing rates and fringe benefits shown in the General Wage Determination Decisions issued by the U.S. Department of Labor shall, in accordance with the provisions of the foregoing statutes, constitute the minimum wages payable on Federal and federally assisted construction projects to laborers and mechanics of the specified classes engaged on contract work of the character and in the localities described therein.

General Wage Determination Decisions, modifications and supersedes decisions thereto are to be used in accordance with the provisions of 29 CFR Parts 1 and 5. Accordingly, the applicable decision, together with any modifications issued, must be made a part of every contract for performance of the described work within the geographic area indicated as required by an applicable DBRA Federal prevailing wage law and 29 CFR Part 5. The wage rates and fringe benefits contained in the General Wage Determination Decision

NOTICE

The most current **General Wage Determination Decisions** (wage rates) are available on the IDOT web site. They are located on the Letting and Bidding page at <http://www.dot.il.gov/desenv/delett.html>.

In addition, ten (10) days prior to the letting, the applicable Federal wage rates will be e-mailed to subscribers. It is recommended that all contractors subscribe to the Federal Wage Rates List or the Contractor's Packet through IDOT's subscription service.

PLEASE NOTE: if you have already subscribed to the Contractor's Packet you will automatically receive the Federal Wage Rates.

The instructions for subscribing are at <http://www.dot.il.gov/desenv/subsc.html>.

If you have any questions concerning the wage rates, please contact IDOT's Chief Contract Official at 217-782-7806.